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 1457

<210> 3184

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3184

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			20				25				30				
Gln	Thr	Gln	Leu	Leu	Val	Pro	Lys	Lys	Val	Leu	Pro	Glu	Ser	Cys	Arg
		35				40				45					
Leu	Ser	Trp	Asn	Leu	Leu	Gly	Asp	Glu	Ala	Ala	Ala	Glu	Leu	Ala	Gln
	50				55				60						
Val	Leu	Pro	Gln	Met	Gly	Arg	Leu	Lys	Arg	Val	Asp	Leu	Glu	Lys	Asn
65				70			75					80			
Gln	Ile	Thr	Ala	Leu	Gly	Ala	Trp	Leu	Leu	Ala	Glu	Gly	Leu	Ala	Gln
			85				90					95			
Gly	Ser	Ser	Ile	Gln	Val	Ile	Arg	Leu	Trp	Asn	Asn	Pro	Ile	Pro	Cys
		100					105					110			
Asp	Met	Ala	Gln	His	Leu	Lys	Ser	Gln	Glu	Pro	Arg	Leu	Asp	Phe	Ala
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<210> 3185

<211> 1433

<212> DNA

<213> Homo sapiens

<400> 3185

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<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

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 20 25 30
 Gly Leu Thr His Gly Val Leu Val Ser Ile Tyr Asn Gln Ser Trp Ser
 35 40 45
 Leu Arg Gly Arg Ile Gly Gly Trp Gly Arg Val Asn Arg Thr Cys His
 50 55 60
 Ser Ile Pro Ser Pro Pro His Phe Ser Leu Phe Leu Gly Pro Pro His
 65 70 75 80
 Met Arg Glu Arg Asp Lys Leu Ala Gln Trp Val Gly Ala Gln Ile Gly

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      85              90              95
Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys
      100              105              110

<210> 3187
<211> 860
<212> DNA
<213> Homo sapiens

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120
aagtgggtcct cccgcctcgg cctcctgagt agctggggatt acagatatgt tctaaaaaca
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240
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<210> 3188
<211> 120
<212> PRT
<213> Homo sapiens

<400> 3188
Thr Pro Gly Leu Lys Trp Ser Ser Arg Leu Gly Leu Leu Ser Ser Trp
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Asp Tyr Arg Tyr Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro
20 25 30
Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu
35 40 45
Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
115              120

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<210> 3189

<211> 440

<212> DNA

<213> Homo sapiens

<400> 3189

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120
gactccccc ctggggcagtg gctgcctcgc tttctctgtc tctttcaggg tgtgtctgcc
180
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300
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440

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<210> 3190

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3190

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Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
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Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
20      25      30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
35      40      45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
50      55      60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65      70      75      80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
85      90      95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
100      105      110

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<210> 3191
 <211> 266
 <212> DNA
 <213> Homo sapiens

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 120
 aacagcagga caatccacac ttccgtagcc tcctgggggc gccgcgcgag ccagcccccgg
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 gccgcgcccc ccagcaccog ttgcagggca gaaaagagaa gagagttgac aacatcgaga
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 266

<210> 3192
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3192
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 Cys Asn Gly Cys Trp Gly Gly Gly Pro Ala Gly Ser Ala Ala Asp
 20 25 30
 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser
 35 40 45
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg
 50 55 60
 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser
 65 70 75 80
 Pro Ser Ala Ser

<210> 3193
 <211> 567
 <212> DNA
 <213> Homo sapiens

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 120
 tggagtgagt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaa
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gctggcctcg tgattcctct ctttccctgc aggccacggg tcacctactt ccccttctcc
 420
 ctgggccacc gctcctgeat cgggcagcag ttgtctcaga tggaggtgaa ggtggctcatg
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<210> 3194
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3194
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 Lys Cys Pro Ala Pro Gly Ser Lys Ser Val Phe Ile Gln Thr Trp Val
 20 25 30
 Asn Tyr Cys Leu Pro Tyr Val Val Pro Val Gly Thr Pro Gly Ala Ala
 35 40 45
 Gly Leu Val Ile Pro Leu Phe Pro Cys Arg Pro Arg Phe Thr Tyr Phe
 50 55 60
 Pro Phe Ser Leu Gly His Arg Ser Cys Ile Gly Gln Gln Phe Ala Gln
 65 70 75 80
 Met Glu Val Lys Val Val Met Ala Lys Leu Leu Gln Arg Leu Glu Phe
 85 90 95
 Arg Leu Val Pro Gly Gln Arg Phe Gly Leu Gln Glu Gln Ala Thr Leu
 100 105 110
 Lys Pro Leu Asp
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<210> 3195
 <211> 987
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 480

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<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

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	20							25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
	35					40					45				
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50				55					60					
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65					70				75				80		
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
				85				90					95		
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Val	Ala	
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Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
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<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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4560
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4620
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4680
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4740
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4800
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4860
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4920

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 4980
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 5340
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 5400
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 5460
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<210> 3198

<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

Met	Ala	Thr	Leu	Asp	Arg	Lys	Val	Pro	Ser	Pro	Glu	Ala	Phe	Leu	Gly
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Lys	Pro	Trp	Ser	Ser	Trp	Ile	Asp	Ala	Ala	Lys	Leu	His	Cys	Ser	Asp
		20					25				30				
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
	35					40					45				
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
	50				55					60					
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
65				70				75						80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
		85						90					95		
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
	100						105						110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
	115				120						125				
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
	130				135					140					
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
145				150					155					160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Ser	Leu	Glu	Lys	Ile	
		165					170					175			
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
	180						185					190			
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

Thr	195				200				205			
	Pro	Pro	Leu	Ile	Lys	Pro	Val	Leu	Met	Ser	Lys	Val
210												
Ser	Pro	Glu	Lys	Ile	Leu	Asn	Gly	Lys	Gly	Ile	Leu	Pro
225												
Asp	Lys	Lys	His	Gln	Asn	Gly	Thr	Lys	Asn	Ser	Asn	Lys
245												
Arg	Leu	Ser	Glu	Arg	Glu	Phe	Asp	Pro	Asn	Lys	His	Cys
260												
Asp	Pro	Glu	Thr	Lys	Lys	Pro	Cys	Thr	Arg	Ser	Leu	Thr
275												
His	Ser	Leu	Ser	His	Arg	Arg	Ala	Val	Pro	Gly	Arg	Lys
290												
Asp	Leu	Leu	Leu	Ala	Glu	His	Lys	Ala	Lys	Ser	Arg	Glu
305												
Lys	Asp	Lys	Glu	His	Leu	Leu	Thr	Ser	Thr	Arg	Glu	Ile
325												
Gln	Ser	Gly	Pro	Ala	Gln	Asp	Ser	Leu	Leu	Gly	Ser	Ser
340												
Gly	Pro	Glu	Pro	Lys	Val	Ala	Ser	Pro	Ala	Lys	Ser	Arg
355												
Ser	Val	Leu	Pro	Arg	Pro	Ser	Ala	Asn	Ser	Ile	Ser	Ser
370												
Ser	Ser	Asn	His	Ser	Gly	His	Thr	Pro	Glu	Pro	Leu	Pro
385												
Gly	Gly	Asp	Leu	Ala	Ser	Arg	Leu	Ser	Ser	Asp	Glu	Gly
405												
Gly	Ala	Asp	Glu	Ser	Glu	Lys	Leu	Asp	Cys	Gln	Phe	Ser
420												
Pro	Arg	Pro	Leu	Ala	Phe	Cys	Ser	Phe	Gly	Ser	Arg	Leu
435												
Gly	Tyr	Tyr	Val	Phe	Asp	Arg	Arg	Trp	Asp	Arg	Phe	Arg
450												
Asn	Ser	Met	Val	Glu	Lys	His	Leu	Asn	Ser	Gln	Met	Trp
465												
Pro	Pro	Ala	Ala	Asp	Ser	Pro	Met	Pro	Ser	Pro	Ala	Ala
485												
Thr	Pro	Val	Pro	Ala	Ser	Val	Leu	Gln	Pro	Phe	Ser	Asn
500												
Val	Tyr	Leu	Pro	Ser	Ala	Pro	Ile	Ser	Ser			

```

625          630          635          640
Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser
          645          650          655
Ala Leu Asn Ser Tyr Gln Ala Ala Pro Tyr Asn Ser Leu Ser Val
          660          665          670
His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
          675          680          685
Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
          690          695          700
Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
          705          710          715          720
Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
          725          730          735
Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
          740          745          750
Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
          755          760          765
Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
          770          775          780
Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
          785          790          795          800
Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
          805          810          815
Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu
          820          825          830
Pro

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<210> 3199
<211> 777
<212> DNA
<213> Homo sapiens

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<400> 3199
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60
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120
caacagcttc ccacagctgg cactggggaa cgtggtgaca ccagaagct tggagatgcc
180
aggaaccgca agggcccaaa gagagtgtca cagccctggc ttagggagct cctaggtctg
240
ggctgcccga agagcaaggg ctcttccttc cttctttctt ttctctctct tgctacctgc
300
aacatggcga gcaaggggca tgtctcagcc ctgtttgtga tacagctctt ttagccctgc
360
catccagtggt gtctgagtt cttgtccggc aaccagggaag aatgaggtac ccagacaagt
420
gtagagtgac caagacaaa aggagcttta ctgagtgaca atagctcaga ggagccctg
480
gagagggcag ttccctacta cagctggcca tccagctct gctcagctct ggctgagcct
540
ggggcttctg tcagcctcag agagggggaa gttcatgctg actggtccat gggcgcccat
600

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gggcaggccc agaaaaggca acacaagtgc gcactccagt ccacggcact gacagcctgg
 660
 cccccagcct tcagggcctc cctggcctga aggtgggcct caccaggggac tcaccccctt
 720
 ctgcccagaa acctgtctgc ctctgtctgc cattcatggc gcccaggcta taggtat
 777

<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

Met	Leu	Gln	Val	Ala	Arg	Arg	Arg	Lys	Glu	Arg	Arg	Lys	Glu	Glu	Pro
1			5					10					15		
Leu	Leu	Phe	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	Leu	Ser	Gln	Gly	Cys
			20					25					30		
Asp	Thr	Leu	Phe	Gly	Ala	Leu	Arg	Phe	Leu	Ala	Ser	Pro	Ser	Phe	Trp
			35				40					45			
Val	Ser	Pro	Arg	Ser	Pro	Val	Pro	Ala	Val	Gly	Ala	Ala	Cys	Cys	Met
			50			55					60				
Pro	Gly	Pro	Ala	Thr	Ala	Ser	Gln	Arg	Ala	Gly	Ala	Leu	Thr	Ser	Thr
			65			70			75				80		
Trp	Ser	Cys	Leu	Pro	His	Cys	Ser	Ser	Arg	Arg	Val				
				85					90						

<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

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 120
 gaagccgaca gcctttggga ccgaggtcag cagctgcacc ggcgcaagaa ttccaaacac
 180
 agctgtggct gaagggcctg ggggtgtgca ggtcccaaac ccagtgagc ctgatcccg
 240
 catgggtcct gtctcctggg gggccacctt gtgtcccggt gtggctgacc ctgagaggga
 300
 gggctgtggg gatgctcaca tgacactggg gtcccagcga cagccccctc tcacgtctgcg
 360
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 390

<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg

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      1           5           10           15
Lys Gly His Ala Ala Gly Val Ser Thr Ala Lys Pro Thr Ala Phe
      20
Gly Thr Glu Val Ser Ser Cys Thr Gly Ala Arg Ile Pro Asn Thr Ala
      35
Val Ala Glu Gly Pro Gly Gly Val Gln Val Pro Asn Pro Ser Glu Pro
      50
Asp Pro Asp Met Gly Pro Val Ser Trp Gly Pro Pro Leu Cys Pro Val
      65
Val Ala Asp Pro Glu Arg Glu Gly Cys Gly Asp Ala His Met Thr Leu
      85
Gly Ser Gln Arg Gln Pro Leu Leu Thr Leu Arg Val Pro Gly Ala Ser
      100
Gln Glu Gly Arg
      115

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<210> 3203

<211> 1906

<212> DNA

<213> Homo sapiens

<400> 3203

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cgggccggag cgtggccgga cccccaccg ccgagggggc caggaggagc gcggcagagt
120
cacggtggca gcattgagag ttggacaccc gggtccttga agtgatctct agggcccgag
180
cccaaatccg ccaccattcc gtgctgcggg gacaccatgg ctccagaaga ggacgctgga
240
ggggaggcct tagggggcag tttctgggag cctggcgaact acaggcgcac ggtacagcgg
300
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360
atcgagaagg cttatgccca gcagttggct gactggggccc gaaagtggag ggggaccgtg
420
gagaagggcc cccagtatgg cactctggag aaggcctggc atgccttttt cacggcggtc
480
gagcggctga gcgcgctgca cctggagggt cgggagaagc tgcaagggga ggacagtga
540
cggttgccgc cctggcagcg gggggctttc cacggcgctg tgctggggcg cttccgcgag
600
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660
gaggttgagg cttccaagaa aagctaccac gcagcccgga aggatgagaa gaccgcccag
720
acgagggaga gccacgcaaa ggcagacagc gccgtctccc aggagcagct gcgcaaaactg
780
caggaaacgg tggaacgctg tgccaaggag gccgagaaga caaaagctca gtatgagcag
840
acgctggcag agctgcatcg ctacactcca cgctacatgg aggacatgga acaggccttt
900
gagacctgcc aggcggccga gcgccagcgg cttcttttct tcaaggatac gtgctgcacc
960

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ttacaccagc acctggacct ttccagcagt gagaagtccc atgaactcca ccgtgacttg
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 1080
 gggccaggca tggccatgaa ctggccacag ttcgaggagt ggtccttgga cacacagagg
 1140
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 1200
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 1320
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 1440
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 1560
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 1620
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 1680
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 1740
 gcctcccccag gagctgtgga ctcagttcct gacctctgct ttgggggtcc tgggggtggg
 1800
 ttgggggtgag tgtagttctg gcctagcagc accctcttgt ggcttggtct agcgtgtatt
 1860
 aaaacttgac acacaccac acacaaaaac aaaaacacca aaaaaa
 1906

<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

Met Ala Pro Glu Glu Asp Ala Gly Gly Glu Ala Leu Gly Gly Ser Phe
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 Trp Glu Ala Gly Asn Tyr Arg Arg Thr Val Gln Arg Val Glu Asp Gly
 20 25 30
 His Arg Leu Cys Gly Asp Leu Val Ser Cys Phe Gln Glu Arg Ala Arg
 35 40 45
 Ile Glu Lys Ala Tyr Ala Gln Gln Leu Ala Asp Trp Ala Arg Lys Trp
 50 55 60
 Arg Gly Thr Val Glu Lys Gly Pro Gln Tyr Gly Thr Leu Glu Lys Ala
 65 70 75 80
 Trp His Ala Phe Phe Thr Ala Ala Glu Arg Leu Ser Ala Leu His Leu
 85 90 95
 Glu Val Arg Glu Lys Leu Gln Gly Gln Asp Ser Glu Arg Val Arg Ala
 100 105 110
 Trp Gln Arg Gly Ala Phe His Arg Pro Val Leu Gly Gly Phe Arg Glu

115 120 125
 Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
 130 135 140
 Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
 145 150 155 160
 Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
 165 170 175
 Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
 180 185 190
 Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
 195 200 205
 Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
 210 215 220
 Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
 225 230 235 240
 Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
 245 250 255
 Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
 260 265 270
 Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
 275 280 285
 Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
 290 295 300
 Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
 305 310 315 320
 Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
 325 330 335
 Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
 340 345 350
 Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
 355 360 365
 Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
 370 375 380
 Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
 385 390 395 400
 Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
 405 410 415
 Asn Tyr Val Glu Cys Val Gly Ala
 420

<210> 3205

<211> 1482

<212> DNA

<213> Homo sapiens

<400> 3205

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 120
 ctgttgaccc ccacaggaga gccctggagc tatgtggagt ctgtggcacg gacagcggtg
 180
 gcrgaacccc gagctcagga ctctgagccc aagagcttta gtgctccagc caccacggcc
 240

tatggccatg agatacccct gaggaacggg accctgggtg gtcctttgt cccccccagc
 300
 cccctctcca ccagcagccc catectcagt gctgacagca ctccagtggt gagtttcccg
 350
 tcgggagaga gcagtgacca ggggtcccg acgcccaccc agcctctgtt ggagttctggc
 420
 ttcgcctcag gcagcctggg acagcccagc ccgtctgccc agagaaacta ccagagctct
 480
 tctctctec cgaactgtgg cagtagctac agcagccccg actactcact tcagcatttc
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 agctcctctc cggaaaacca ggctcgagct cagttcagtg tggctggcgt ccacacgggtg
 600
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 660
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 720
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 780
 agcagtgcag cgaccacccc ggggagcccc agcctgtgtc ggcacccagc aggggtctac
 840
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 900
 caccctgggg ctcaccaagg caacctggcc tcgggtcttc atagcaatgc aatagccagc
 960
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 1020
 cctgcttggt accggcatgt ggcctatggc ggctattcta ccccgaggga tcggagacc
 1080
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 1200
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 1320
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 1380
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 1440
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 1482

<210> 3206

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3206

Xaa	Glu	Met	Glu	Gly	Thr	Ser	Pro	Ser	Ser	Pro	Pro	Pro	Ser	Gly	Val
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Arg	Ser	Pro	Pro	Gly	Leu	Ala	Lys	Thr	Pro	Leu	Ser	Ala	Leu	Gly	Leu
			20				25					30			
Lys	Pro	His	Asn	Pro	Ala	Asp	Ile	Leu	Leu	His	Pro	Thr	Gly	Glu	Pro

35	40	45
Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg		
50	55	60
Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala		
65	70	75
Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe		
85	90	95
Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp		
100	105	110
Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly		
115	120	125
Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly		
130	135	140
Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser		
145	150	155
Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser		
165	170	175
Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe		
180	185	190
Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His		
195	200	205
Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg		
210	215	220
Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His		
225	230	235
His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val		
245	250	255
Ser Ser Pro Gln Ser Ser Ala Ala Thr Pro Gly Ser Pro Ser Leu		
260	265	270
Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys		
275	280	285
Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala		
290	295	300
His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser		
305	310	315
Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val		
325	330	335
Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr		
340	345	350
Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala		
355	360	365
Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala		
370	375	380
Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser		
385	390	395
Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg		
405	410	415
Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr		
420	425	430
Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro		
435	440	445
Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser		
450	455	460
Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys		


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465                               470                               475                               480
Phe Val Gln Asp Thr Ser Lys Tyr Trp Tyr Lys Pro Lys Ile
                               485                               490

<210> 3207
<211> 495
<212> DNA
<213> Homo sapiens

<400> 3207
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120
ctgtcgcgca agctgcataa gatectggag acgcggtggt acaacgacaa ggagatgtta
180
gaagctctca aggcactttc aacctttttt gttgaaaata gtctcgggac tcgaagaaat
240
ttacgtggag atattgaacg taaaagttta gccatcaatg aagaatttgt aagcattttc
300
aagggaagtga aggaggaact tgaagcata agcgaagatg ttcaagcaat gagcaactgt
360
tgtcaagata tgacaagtcg cctacaggca gcaaaggaaac agactcaaga tttaatagta
420
aataccacta agcttcaatc tgaagcccaa aaattagaga taagagctca agttgcagat
480
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495

<210> 3208
<211> 107
<212> PRT
<213> Homo sapiens

<400> 3208
Met Leu Glu Ala Leu Lys Ala Leu Ser Thr Phe Phe Val Glu Asn Ser
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Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp Ile Glu Arg Lys Ser Leu
20 25 30
Ala Ile Asn Glu Glu Phe Val Ser Ile Phe Lys Glu Val Lys Glu Glu
35 40 45
Leu Glu Ser Ile Ser Glu Asp Val Gln Ala Met Ser Asn Cys Cys Gln
50 55 60
Asp Met Thr Ser Arg Leu Gln Ala Ala Lys Glu Gln Thr Gln Asp Leu
65 70 75 80
Ile Val Asn Thr Thr Lys Leu Gln Ser Glu Ser Gln Lys Leu Glu Ile
85 90 95
Arg Ala Gln Val Ala Asp Ala Phe Leu Ser Lys
100 105

<210> 3209
<211> 346
<212> DNA
<213> Homo sapiens

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<400> 3209
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 120
 gaagaatcag cccacacatg caggggtgtg ttagtgggga acgggctctg ggctcctgtg
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 ggaaccaggg accccctatc ttggtaccgg tcattggatg tatcccccagc tcatgcctgt
 240
 gtctgtcttg gcccggtgtg tcacctgtg ttcattcttc tcccagccat ggcctctcaa
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 346

<210> 3210
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 3210
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 Cys Ser His Ser Arg Arg Ile Ser Pro Thr Val Gln Gly Cys Val Ser
 20 25 30
 Gly Glu Arg Ala Leu Gly Ser Cys Gly Asn Gln Gly Pro Pro Ile Leu
 35 40 45
 Val Pro Val Ile Gly Cys Ile Pro Ser Ser Cys Leu Cys Leu Ser Trp
 50 55 60
 Pro Val Trp Ser Pro Cys Val His Leu Ser Pro Ser His Gly Leu Ser
 65 70 75 80
 Asn Trp Gly Phe Arg Leu Pro Met Arg Gly Ser Trp Tyr Val Arg
 85 90 95

<210> 3211
 <211> 1728
 <212> DNA
 <213> Homo sapiens

<400> 3211
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 120
 gtttctcttg ccactgtgca agccagtcgg aaggaccagg gactctatta ctgctgcac
 180
 aagaacagct acggaaaaat gactgtctgaa tttaacctca cagctgaagt tctcaaacag
 240
 ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt
 300
 caaagaagac ttctccatg acagctactt tgggggcccgc ctgcgtggtc agatcgccac
 360
 ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca
 420

cgccctcatg cctgtcttca aacctggcca tgcctgtgtg ctttaagggtg acaatgccat
 480
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tgcgtgcccc
 540
 ggaatgctat gttcaaaata ctgccaggta ttatgccaag atctacgctg ctgaagcaca
 600
 gcctctggaa ggctttggag aagtacctga gatcatctct tttttcttta tccatcgccc
 660
 tgagaacaat atccogtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta
 720
 ttccatcagg gatgggaaag aaataaaact cttgagaaga gaatcagaag ctggtcagaa
 780
 atgttgacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tgggtgacgga
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 900
 caagggattt aaaggcaact gttccatgac cttcattgat cagttaaag cactacacca
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 1020
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 1080
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 1200
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 1260
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 1320
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 1380
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 1560
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 1680
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 1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser Gly Asn Ile Lys Leu Ser Tyr Gln Phe Ser Glu Ile His Glu Asp
 1 5 10 15
 Ser Thr Val Cys Trp Thr Lys Asp Ser Lys Ser Ile Ala Gln Ala Lys

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                20                25                30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
   35                40                45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
   50                55                60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
   65                70                75                80
Leu Ser Ser His Thr Glu Tyr
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<210> 3213

<211> 348

<212> DNA

<213> Homo sapiens

<400> 3213

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120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agttttaaag ctcatcggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttgtaccga ttctaggaat tgaagcagga atctttcaga tactttcta
348

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<210> 3214

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3214

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Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
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Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
   20                25                30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
   35                40                45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
   50                55                60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
   65                70                75                80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
                        85                90

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<210> 3215

<211> 597

<212> DNA

<213> Homo sapiens

<400> 3215

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 120
 accttcaagt tcgacttga cggggacgca cccgatgaaa ttgccacgta tatgggtggag
 180
 catgaactta tctgcaggc cgagcgggaa acgttcatcg agcagatgaa ggaatgtcatg
 240
 gacaaggcag aggacatgct cagcgaggac acagacgccc accgtggctc cgaccagggg
 300
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 360
 caagccaacg ccccggtgta tcagcagaac gtctgcaca cgggaagag gtggttcac
 420
 atctgtccg tgctgagcc ccccgcccc gagggccctt gaattcttcg ccccaattcc
 480
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 597

<210> 3216

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3216

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Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
		20						25					30		
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
		35				40						45			
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
	50					55					60				
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65				70					75				80		
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
			85						90				95		
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
			100					105					110		
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
		115				120						125			
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
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Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145					150										

<210> 3217

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 3217

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120
accataacca ggcactatga gctttacagg cgctgcaaac tggaggaaaat gggctttaca
180
gatgtgggcc cagaaaaaca gccagtcagt gttcaagaga cctatgaagc caaaagacat
240
gagtcccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga
300
gtaaaggaga aagaagccat attgaagaa gctgagagag agctacaggg caaatgtgag
360
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg
420
gaagaagaaa taattgcttt ctctaaaaag aaagctacct cagagatatt tcacagccag
480
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540
ttgtaaaaa caagtctccag agcacagaag gtcacatca caagcaaac ttattaaaaa
600
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga
660
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag
720
ccagagttaa tgatactaca agttgagcat ctctaattca aaaatctgaa atccagaagc
780
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840
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900
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960
gagtcgggct cggttgtgta tatgcagata ttccaaacct gaaatccaaa acacttctgg
1020
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1080
gttggttagaa atgtttaagt tgctgttctg tgatgaatct aaactctttc tcttgctacc
1140
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1200
gaaccatta atatcgtggc tatctgatta catttatatt ccaagatgaa ccttttttta
1260
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1380
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1620

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 1680
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 1860
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 1920
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 2280
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 2340
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 2400
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 2460
 aactggggat tgggtgggca ggaagagtg atatccattc ttctgataa ctagatgggt
 2520
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 2570

<210> 3218

<211> 181

<212> FRT

<213> Homo sapiens

<400> 3218

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Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
		20						25				30			
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
		35					40					45			
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro
	50				55						60				
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
65					70				75					80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85					90						95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

115	120	125
Glu Arg Met Lys Leu Glu Glu Gln Arg Arg Leu Leu Glu Glu Ile		
130	135	140
Ile Ala Phe Ser Lys Lys Lys Ala Thr Ser Glu Ile Phe His Ser Gln		
145	150	155
Ser Phe Leu Ala Thr Gly Ser Asn Leu Ser Lys Asp Lys Asp His Lys		
165	170	175
Asn Ser Asn Phe Leu		
180		

<210> 3219

<211> 1241

<212> DNA

<213> Homo sapiens

<400> 3219

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 120
 gagcgggaga cagacatcct ggacgatgaa ttgccaaacc aggatggta cagtgcgggc
 180
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 420
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 480
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 720
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 780
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 1080
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 1140

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<210> 3220

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3220

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Leu	Gly	Cys	Ala	Ser	Ser	Gly	Arg	His	Val	Val	Pro	Ala	Gln	Val	His
			20				25						30		
Val	Asn	Gly	Gly	Xaa	Val	Thr	Ser	Glu	Arg	Glu	Thr	Asp	Ile	Leu	Asp
		35					40					45			
Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser	Ala	Gly	Ser	Met	Gly	Thr
		50				55					60				
Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Ile	Ser	Glu	Gly	Gly	Tyr	Pro
65					70				75					80	
Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu	Asp	Lys	Ser	Tyr	Pro	Met
				85					90					95	
Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Ser	Ala	Ser	Arg
			100					105					110		
Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala	Pro	Met	Arg	Pro	Ser	Tyr
		115				120						125			
Ser	Ala	Gln	Glu	Gly	Leu	Ala	Gly	Tyr	Gln	Arg	Glu	Gly	Pro	His	Pro
		130				135					140				
Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His	Tyr	Ala	His	Asp	Pro	Ser
145					150					155				160	
Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu	Ala	Glu	Pro	Gln	Leu	Pro
				165					170					175	
Pro	Ala	Pro	Val	Arg	Gly	Gly	Ser	Ser	Arg	Glu	Ala	Val	Gln	Arg	Gly
			180				185						190		
Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Arg	Pro
			195				200						205		
Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu	Glu	Ser	Leu	Val	Ala	Ser
			210			215					220				
Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr	Pro	Ile	Pro	Ser	Leu	Pro
				230						235				240	
Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu	Ile	Glu	Gln	Ser	Ile	Glu
				245					250					255	
Thr	Leu	Asn	Met	Leu	Met	Leu	Asp	Leu	Glu	Pro	Ala	Ser	Ala	Ala	Ala
			260				265						270		
Pro	Leu	His	Lys	Ser	Gln	Ser	Val	Pro	Gly	Ala	Trp	Pro	Gly	Ala	Ser
		275					280					285			
Pro	Leu	Ser	Ser	Gln	Pro	Leu	Ser	Gly	Ser	Ser	Arg	Gln	Ser	His	Pro
			290			295					300				
Leu	Thr	Gln	Ser	Arg	Ser	Gly	Tyr	Ile	Pro	Ser	Gly	His	Ser	Leu	Gly
				310						315				320	
Thr	Pro	Glu	Pro	Ala	Pro	Arg	Ala	Ser	Leu	Glu	Ser	Val	Pro	Pro	Gly
				325					330				335		
Arg	Ser	Tyr	Ser	Pro	Tyr	Asp	Tyr	Gln	Pro	Cys	Leu	Ala	Gly	Pro	Asn

	340		345		350
Gln Asp Phe	His Ser Lys Ser	Pro Ala Ser Ser	Leu Pro Ala Phe		
	355	360	365		
Leu Pro Thr Thr	His Ser Pro Pro	Gly Pro Gln Gln	Pro Pro Ala Ser		
	370	375	380		
Leu Pro Gly Leu Thr	Ala Gln Pro Leu Leu	Ser Pro Lys Glu Ala Thr			
385	390	395	400		
Ser Asp Pro Ser Arg Thr	Pro Glu Glu Glu	Pro Leu Asn			
	405	410			

<210> 3221

<211> 1585

<212> DNA

<213> Homo sapiens

<400> 3221

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 180
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 240
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 360
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 420
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 480
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 600
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 720
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 780
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 840
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 960
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 1080
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 1140

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 1260
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 1320
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 1380
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 1440
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 1500
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 1560
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 1585

<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

Leu	Leu	Ala	Val	Leu	Arg	Pro	Arg	Arg	Ser	Arg	Lys	Arg	His	Val	Gln
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Trp	Val	Glu	Glu	Pro	Gln	Arg	Ser	Cys	Thr	Ala	Arg	Arg	Trp	His	Ile
		20						25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
		35						40					45		
His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
	50				55					60					
Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
65				70					75					80	
Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
		85							90					95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
		100					105						110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
	115				120					125					
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130				135					140					
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145				150						155				160	
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
		165							170					175	
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
		180					185						190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
	195					200						205			
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210				215					220					
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
225				230					235					240	
Met	Ser	Thr	Leu	Gln	Met	Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile

			245				250				255				
Thr	Pro	Ser	Gly	Ser	Val	Ile	Ser	Lys	Phe	Asn	Ser	Thr	Thr	Ser	Ser
			260					265				270			
Ala	Thr	Pro	Gln	Ala	Phe	Asp	Ser	Ser	Ala	Val	Val	Phe	Ile	Phe	
			275				280				285				
Val	Ser	Thr	Ala	Val	Val	Val	Leu	Val	Ile	Leu	Thr	Met	Thr	Val	Leu
			290				295				300				
Gly	Leu	Val	Lys	Leu	Cys	Phe	His	Glu	Ser	Pro	Ser	Ser	Gln	Pro	Arg
			305				310			315				320	
Lys	Glu	Ser	Met	Gly	Pro	Pro	Gly	Cys	Asp	Glu					
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<210> 3223

<211> 985

<212> DNA

<213> Homo sapiens

<400> 3223

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120
gaagcttcga ggaggtacaa gaaagtcatt ccaggagctg agcccctcat ctgcgcctcc
180
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240
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300
gttgccgaca tctctgtgtc tgtggtggtg ccagatgccc gggggacggc agaggcactt
360
cagatcacgg tgggccacat cctgggagac gctggcagcc cctatctcac aggacttacc
420
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480
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540
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600
aatgatgtgg acagcaacga cctggagaga caaggcctac ttccgggcgc tggcgccctc
660
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720
ccacagcagc agtgccctcg ttctctcttg gctgtcctcg gggactcccg ctgaggcaca
780
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840
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960
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985

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<210> 3224

<211> 224

<212> PRT

<213> Homo sapiens

<400> 3224

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Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly
 20           25           30
Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys
 35           40           45
Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala
 50           55           60
Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu
 65           70           75           80
Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Ser Cys
 85           90           95
Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg
100           105           110
Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu
115           120           125
Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu
130           135           140
Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln
145           150           155           160
Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe
165           170           175
Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln
180           185           190
Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu
195           200           205
Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro
210           215           220

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<210> 3225

<211> 506

<212> DNA

<213> Homo sapiens

<400> 3225

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gcagtcgaaa ttctttctga accccatata ggatgaagggt tatatttcca aaattaaaaac
120
agaggaacat tttaaatggc ctactgccat gcaccttctt tattcaagaa gctaccaaga
180
atttcgctg tttccagtc cctaaaatgc ctgtgccatg tgccctgggt gaagaactag
240
tcccatgccca caggggtaca ggccccgctg tagtttggcc agcccaaccg cagcaagggg
300
aagtggaaac acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata
360
accacaccgc ctttgaggtg agccacccaa gatgcaggtg gggctgtatg aaactccacg
420

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aacatgggat gagtttcatt ttcagggttc cgaggggcca tgagtgggtac caagatccct
480

ggaggtgccc ttggtttccc atgtag
506

<210> 3226

<211> 137

<212> PRT

<213> Homo sapiens

<400> 3226

Met	Lys	Val	Ile	Phe	Pro	Lys	Leu	Lys	Gln	Arg	Asn	Ile	Leu	Asn	Gly
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Leu	Arg	Pro	Cys	Thr	Phe	Phe	Ile	Gln	Glu	Ala	Thr	Lys	Asn	Ser	Ala
			20					25					30		
Cys	Phe	Pro	Val	Pro	Lys	Met	Pro	Val	Pro	Cys	Ala	Leu	Gly	Glu	Glu
		35					40					45			
Leu	Val	Pro	Cys	His	Arg	Gly	Thr	Gly	Pro	Ala	Val	Val	Trp	Pro	Ala
		50			55						60				
Gln	Pro	Gln	Gln	Gly	Glu	Val	Glu	Pro	Gln	Pro	Gln	Pro	Thr	Gln	Arg
65				70					75					80	
Met	Glu	Pro	Pro	Ser	Ala	Ala	Lys	Asn	Asn	His	Thr	Ala	Phe	Glu	Val
				85					90					95	
Ser	His	Pro	Arg	Cys	Arg	Trp	Gly	Cys	Met	Lys	Leu	His	Glu	His	Gly
			100					105					110		
Met	Ser	Phe	Ile	Phe	Arg	Val	Pro	Arg	Gly	His	Glu	Trp	Tyr	Gln	Asp
		115					120					125			
Pro	Trp	Arg	Cys	Pro	Trp	Phe	Pro	Met							
		130				135									

<210> 3227

<211> 1623

<212> DNA

<213> Homo sapiens

<400> 3227

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120
gtgttttcct cccgccaggc aagtgcctct agaaaccggg cccgcctccc ttcttggcct
180
gcattcccat cccctctccc ggggcggagg tgaggacctc cttggttctt ttggttctgt
240
cagtgagccc cttccttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgag
300
ggccagggtga ccttggtccc cgaggagcct gaggacatgt ggcacactta caacctcgtg
360
caggtggggc acagcctgag cgctccacc atccgcaagg tacagacaga gtctccacg
420
ggcagcgtgg gcagcaaccg ggtccgcact accctcactc tctgcgtgga ggcatcgac
480
ttcgactctc aagcctgccca gctgcggggt aaggggacca acatccaaga gaatgagat
540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc
 600
 aagaagcagt gggatagtggt ggtactggag cgcacgagc aggcctgtga cccagcctgg
 660
 agcgctgatg tggcggtgtg ggtcatgcag gaaggcctcg cccatatctg cttagtcaact
 720
 ccagcatga cctcactcg ggccaagggt gaggtgaaca tcctcaggaa aaggaaaggc
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 1020
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 1200
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 1380
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 1500
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 1620
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 1623

<210> 3228

<211> 385

<212> FRT

<213> Homo sapiens

<400> 3228

Met Lys Leu Val Arg Lys Asn Ile Glu Lys Asp Asn Ala Gly Gln Val
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 Thr Leu Val Pro Glu Glu Pro Glu Asp Met Trp His Thr Tyr Asn Leu
 20 25 30
 Val Gln Val Gly Asp Ser Leu Arg Ala Ser Thr Ile Arg Lys Val Gln
 35 40 45
 Thr Glu Ser Ser Thr Gly Ser Val Gly Ser Asn Arg Val Arg Thr Thr
 50 55 60
 Leu Thr Leu Cys Val Glu Ala Ile Asp Phe Asp Ser Gln Ala Cys Gln

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65          70          75          80
Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met
85
Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu
100
Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala
115
Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Ala Val Val Met Gln Glu
130
Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg
145
Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser
165
Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala
180
Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala
195
Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln
210
Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe
225
Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala
245
Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala
260
Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu
275
Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu
290
Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His
305
Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val
325
Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser
340
Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe
355
Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu
370
Asp
385

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<210> 3229

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3229

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120
ggcgcgctaa ggtgcgcgtg ctcgctggtt ctaacccttc tgttgggcgt ttctgctgag
180

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aggcgggagg cgctgagagt ctgtgctggag gtccgtggac agactgcttt gctcgttgtt
 240
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 300
 cagccgacca ttatggaaga cggcaagcgg gagaggtggc ccaccctcat ggagcgcttg
 360
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 420
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 480
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 660
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 780
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 1008

<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

Met Glu Asp Gly Lys Arg Glu Arg Trp Pro Thr Leu Met Glu Arg Leu
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 Cys Ser Asp Gly Phe Ala Phe Pro Gln Tyr Pro Ile Lys Pro Tyr His
 20 25 30
 Leu Lys Arg Ile His Arg Ala Val Leu Arg Gly Asn Leu Glu Glu Leu
 35 40 45
 Lys Tyr Leu Leu Leu Thr Tyr Tyr Asp Ile Asn Lys Arg Asp Arg Lys
 50 55 60
 Glu Arg Thr Ala Leu His Leu Ala Cys Ala Thr Gly Gln Pro Glu Met
 65 70 75 80
 Val His Leu Leu Val Ser Arg Arg Cys Glu Leu Asn Leu Cys Asp Arg
 85 90 95
 Glu Asp Arg Thr Pro Leu Ile Lys Ala Val Gln Leu Arg Gln Glu Ala
 100 105 110
 Cys Ala Thr Leu Leu Leu Gln Asn Gly Ala Asp Pro Asn Ile Thr Asp
 115 120 125
 Val Phe Gly Arg Thr Ala Leu His Tyr Ala Val Tyr Asn Glu Asp Thr
 130 135 140
 Ser Met Ile Glu Lys Leu Leu Ser His Gly Thr Asn Ile Glu Glu Cys

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145              150              155              160
Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
              165              170              175
Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
              180              185              190
Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
              195              200              205
Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
              210              215              220
Ser Arg Asp Val Tyr Gly Lys Leu
225              230

<210> 3231
<211> 1367
<212> DNA
<213> Homo sapiens

<400> 3231
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120
taacagtgcg gtagccggcc gcgtcgtgag ggggtcggca cggggagtcg ggcggctctg
180
tgcatcttgg ctacctgtgg gtcgaagatg tcggacatcg gagactggtt caggagcatc
240
ccggcgatca cgcgtattg gttcgcgcc accgtcgccg tgccttgggt cggcaaaactc
300
ggcctcatca gcccggccta cctcttctc tggcccgaa gcttctctta tcgctttcag
360
atttggaggc caatcactgc caccttttat ttcctgttgg gtccaggaa caggatttctt
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780
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900
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960
tgaaggggcg gcctcgggca gccgctctc tcaagccaca tttctctcca gtgctgggtg
1020
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1080

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tcagtagcag acaaagtttc ttaaattcccg aagaaaaata taagtgttcc acaagtttca
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 1200
 actgactaca ttttttggtg tttttttttt tcccccttcc gttctgaata atgggtttta
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 1367

<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

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 20 25 30
 Leu Ile Ser Pro Ala Tyr Leu Phe Leu Trp Pro Glu Ala Phe Leu Tyr
 35 40 45
 Arg Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe Tyr Phe Pro Val
 50 55 60
 Gly Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr
 65 70 75 80
 Gln Tyr Ser Thr Arg Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala
 85 90 95
 Asp Tyr Leu Phe Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr
 100 105 110
 Gly Leu Ala Met Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser
 115 120 125
 Val Leu Tyr Val Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe
 130 135 140
 Trp Phe Gly Thr Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val Ile Leu
 145 150 155 160
 Gly Phe Asn Tyr Ile Ile Gly Gly Ser Val Ile Asn Glu Leu Ile Gly
 165 170 175
 Asn Leu Val Gly His Leu Tyr Phe Phe Leu Met Phe Arg Tyr Pro Met
 180 185 190
 Asp Leu Gly Gly Arg Asn Phe Leu Ser Thr Pro Gln Phe Leu Tyr Arg
 195 200 205
 Trp Leu Pro Ser Arg Arg Gly Gly Val Ser Gly Phe Gly Val Pro Pro
 210 215 220
 Ala Ser Met Arg Arg Ala Ala Asp Gln Asn Gly Gly Gly Arg His
 225 230 235 240
 Asn Trp Gly Gln Gly Phe Arg Leu Gly Asp Gln
 245 250

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

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<400> 3233
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120
atgacaattt tcacatctec cgcttccccc tccaagagt tctacttgtc caattctgaa
180
aaggaaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca
240
gcaagagctt tacctatcta taccacatca gcttcaaaaa ctatcagata ttgtgaaaaa
300
tgtcagctga ttaaacctga tcggggcgcat cactgctcag cctgtgactc atgtattctt
360
aagatggatc atccctgttc ttgggtgaat aactgtgtgg gattttctaa ttacaaatc
420
ttcctgtctg ttttattgta ttccctatta tattgccttt tcgtggccgc acagttttag
480
agtacttaaa aaatttttga cgaagaacc gacaaaaacc cggggccaaa ttccacgtac
540
ttttttcttt tctttgtgtc tgcaatgttc ttcatcagcg tctctcact ttccagctac
600
cactgctggc tttaaacagc attgtccaca gctccgtctg cagggtcagg gcatggcctc
660
tctccgtggt cctgtgaaga gccttcattg gaatcatccc gggacatata gcttgaatgt
720
gctgtctggc tagccctccc acaagtcggt cactctgcac aaggaatccg agagctcatc
780
aaggatcagc acggtctggg gccaggtgg ggtggaacac gcacggtcca caagcaatc
840
tgtctttctc aaggcttttt cttgtgcagt atgaatcct tcattttca tatgaagtat
900
gtgcctttctg gggcactgag ctccaggaact ccaaaaagac cccttcgggc cggatcccg
960
cttcaaggct gcccc
975

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<210> 3234
<211> 159
<212> PRT
<213> Homo sapiens

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<400> 3234
Xaa Ala Tyr Val Val Glu Leu Cys Val Phe Thr Ile Phe Gly Asn Glu
1 5 10 15
Glu Asn Gly Lys Thr Val Val Tyr Leu Val Ala Phe His Leu Phe Phe
20 25 30
Val Met Phe Val Trp Ser Tyr Trp Met Thr Ile Phe Thr Ser Pro Ala
35 40 45
Ser Pro Ser Lys Glu Phe Tyr Leu Ser Asn Ser Glu Lys Glu Arg Tyr
50 55 60
Glu Lys Glu Phe Ser Gln Glu Arg Gln Gln Glu Ile Leu Arg Arg Ala
65 70 75 80
Ala Arg Ala Leu Pro Ile Tyr Thr Thr Ser Ala Ser Lys Thr Ile Arg

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      85              90              95
Tyr Cys Glu Lys Cys Gln Leu Ile Lys Pro Asp Arg Ala His His Cys
      100              105              110
Ser Ala Cys Asp Ser Cys Ile Leu Lys Met Asp His Pro Cys Pro Trp
      115              120              125
Val Asn Asn Cys Val Gly Phe Ser Asn Tyr Lys Phe Phe Leu Leu Phe
      130              135              140
Leu Leu Tyr Ser Leu Leu Tyr Cys Leu Phe Val Ala Ala Gln Phe
      145              150              155

<210> 3235
<211> 551
<212> DNA
<213> Homo sapiens

<400> 3235
ntggaaactg agcttcaaac atataagcat tctcgtcagg ggctagatga aatgtacaat
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gaagccagaa ggcagcttcg agatgaatct cagttacgac aggatgtaga gaatgagcta
120
gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
180
atccatgaga aacaagatag tctgataggc ctctgacaac aactagagga agttaaagca
240
attaacatag agatgtatca aaagttgcag ggttctgaag atggcttgaa agaaaaaaat
300
gaaataattg cccgactaga agaaaaaacc aataaaatta ctgcagccat gaggcagctg
360
gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
420
tatctacaag aatgtctcag taaatctgat agtctgcaga acaaatctc ccaaaaggag
480
aaacagctgg tgcaactgga aactgacttg aagattgaga aggaatggag gcgactttg
540
caggaagatc t
551

<210> 3236
<211> 183
<212> PRT
<213> Homo sapiens

<400> 3236
Xaa Glu Thr Glu Leu Gln Thr Tyr Lys His Ser Arg Gln Gly Leu Asp
1      5      10      15
Glu Met Tyr Asn Glu Ala Arg Arg Gln Leu Arg Asp Glu Ser Gln Leu
20     25     30
Arg Gln Asp Val Glu Asn Glu Leu Ala Val Gln Val Ser Met Lys His
35     40     45
Glu Ile Glu Leu Ala Met Lys Leu Leu Glu Lys Asp Ile His Glu Lys
50     55     60
Gln Asp Thr Leu Ile Gly Leu Arg Gln Gln Leu Glu Glu Val Lys Ala
65     70     75     80
Ile Asn Ile Glu Met Tyr Gln Lys Leu Gln Gly Ser Glu Asp Gly Leu

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	85		90		95
Lys	Glu	Lys	Asn	Glu	Ile
	100		105		110
Ile	Thr	Ala	Met	Arg	Gln
	115		120		125
Lys	Ala	Gln	Met	Glu	Ala
	130		135		140
Cys	Leu	Ser	Lys	Ser	Asp
	145		150		155
Lys	Gln	Leu	Val	Gln	Leu
	165		170		175
Arg	Gln	Thr	Leu	Gln	Glu
	180				

<210> 3237

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3237

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nctctgggct cgcacctacc tcgcagaggg gtttgacta aggcgctggg cgccgggctc
60
cgggcgctgt ggaccatggc tccgcccgcg gcgcctggcc gggaccgtgt gggcggtgag
120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagccctt ggtgagaag
180
aagcgacgcg cgcgcatcaa cgagagtctt caggagtgcg ggctgtgtgt ggcgggcgcc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacggtgcg gcgggtccag
300
ggtgtgtctg gggggccggc gcgcgagcgc gagcagctgc aggcggaagc gagcgagcgc
360
ttcgtgcgcg gctacatcca gtgcatgcac gaggtgcaca cgctcgtgtc cacgtgccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgcccgtg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcgggggc acctagagcc
540
cctggagcga gtggctggcc tgccgggggg gtcctgggat cccaataacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgaacct gaggaggccc ctgaggctga actgagtcag
660
gctcctgctg agggggccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttgggtg ccaatgccag ccagagtcct gcgggggtgg
780
gcccgccctt ccctggatct cctccctcct cccagggggt cagatgtggt ggggtagggg
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggcttgtag ggcagccctt
900
ggtaaccagc ccagtcaggc cccagccccc ttcttaaga aacttttagg gaccttgtag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcca
1020

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gcgcctctccc aggttcaccc acccaggett caccagccct gtgcgggctc tgggggcaga
 1080
 ggtgggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaagctt
 1140
 gaacttgcca cttcagcggg gagatgagag gcaggtgcac tcagctgcac tgcccagagc
 1200
 tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca
 1260
 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg
 1320
 acg
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa Leu Gly Cys Asp Leu Pro Arg Arg Gly Val Cys Thr Lys Ala Leu
 1 5 10 15
 Gly Ala Gly Leu Arg Ala Leu Trp Thr Met Ala Pro Pro Ala Ala Pro
 20 25 30
 Gly Arg Asp Arg Val Gly Arg Glu Asp Glu Asp Arg Trp Glu Val Arg
 35 40 45
 Gly Asp Arg Lys Ala Arg Lys Pro Leu Val Glu Lys Lys Arg Arg Ala
 50 55 60
 Arg Ile Asn Glu Ser Leu Gln Glu Leu Arg Leu Leu Ala Gly Ala
 65 70 75 80
 Glu Val Gln Ala Lys Leu Glu Asn Ala Glu Val Leu Glu Leu Thr Val
 85 90 95
 Arg Arg Val Gln Gly Val Leu Arg Gly Arg Ala Arg Glu Arg Glu Gln
 100 105 110
 Leu Gln Ala Glu Ala Ser Glu Arg Phe Ala Ala Gly Tyr Ile Gln Cys
 115 120 125
 Met His Glu Val His Thr Phe Val Ser Thr Cys Gln Ala Ile Asp Ala
 130 135 140
 Thr Val Ala Ala Glu Leu Leu Asn His Leu Leu Glu Ser Met Pro Leu
 145 150 155 160
 Arg Glu Gly Ser Ser Phe Gln Asp Leu Leu Gly Asp Ala Leu Ala Gly
 165 170 175
 Pro Pro Arg Ala Pro Gly Arg Ser Gly Trp Pro Ala Gly Gly Ala Pro
 180 185 190
 Gly Ser Pro Ile Pro Ser Pro Pro Gly Pro Gly Asp Asp Leu Cys Ser
 195 200 205
 Asp Leu Glu Glu Ala Pro Glu Ala Glu Leu Ser Gln Ala Pro Ala Glu
 210 215 220
 Gly Pro Asp Leu Val Pro Ala Ala Leu Gly Ser Leu Thr Thr Ala Gln
 225 230 235 240
 Ile Ala Arg Ser Val Trp Arg Pro Trp
 245

<210> 3239

<211> 432

<212> DNA

<213> Homo sapiens

<400> 3239

aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgcaca
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 agaaaacttgg tgagaaataa gctgggcagtg attacgcgtc tccttcagaa tctgatcatg
 120
 ggtttgttcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa ggggtctatc
 180
 caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac aggcgatgctg
 240
 aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
 300
 ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtcctccc cttcagcggt
 360
 gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tctcagaggt
 420
 gcccgattgg gt
 432

<210> 3240

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3240

Lys	Thr	Lys	Asp	Ser	Pro	Gly	Val	Phe	Ser	Lys	Leu	Gly	Val	Leu	Leu
1			5						10					15	
Arg	Arg	Val	Thr	Arg	Asn	Leu	Val	Arg	Asn	Lys	Leu	Ala	Val	Ile	Thr
			20						25				30		
Arg	Leu	Leu	Gln	Asn	Leu	Ile	Met	Gly	Leu	Phe	Leu	Leu	Phe	Phe	Val
			35				40						45		
Leu	Arg	Val	Arg	Ser	Asn	Val	Leu	Lys	Gly	Ala	Ile	Gln	Asp	Arg	Val
			50			55					60				
Gly	Leu	Leu	Tyr	Gln	Phe	Val	Gly	Ala	Thr	Pro	Tyr	Thr	Gly	Met	Leu
			65			70			75					80	
Asn	Ala	Val	Asn	Leu	Phe	Pro	Val	Leu	Arg	Ala	Val	Ser	Asp	Gln	Glu
			85						90					95	
Ser	Gln	Asp	Gly	Leu	Tyr	Gln	Lys	Trp	Gln	Met	Met	Leu	Ala	Tyr	Ala
			100					105					110		
Leu	His	Val	Leu	Pro	Phe	Ser	Val	Val	Ala	Thr	Met	Ile	Phe	Ser	Ser
			115					120				125			
Val	Cys	Tyr	Trp	Thr	Leu	Gly	Leu	His	Pro	Glu	Val	Ala	Arg	Leu	Gly
			130				135							140	

<210> 3241

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3241

gtggaatttt tttagacaaa gtctcaaaaa acaacaacac aaacaaaagg taagataaat
 60

acgaaataca aaataagagg cagggaagagc ccaaagcatc agaaatgtgc cagttataat
 120
 gggccaaaat cccctcttgt gtctccagaa gtattttgaaa aatacgttag gatctgcttc
 180
 acagacatgc tcccaggaca ctgcacagca aggaggtacg gcgggcccag ccagccaagg
 240
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaaagg gacgactccg
 300
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggccctccctc agccccacac
 360
 cccaccagg caggagcggg gcctggcccg gggcaggcgg gtgggagagc tcactgagtg
 420
 ggagcaggg catggcccct gatgctgcag gtaccaggc tgcagctgca gaaacctcag
 480
 tgggaaccca gg
 492

<210> 3242

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3242

Met	Gly	Gln	Asn	Pro	Leu	Leu	Cys	Leu	Gln	Lys	Tyr	Leu	Lys	Asn	Thr
1				5					10					15	
Leu	Gly	Ser	Ala	Ser	Gln	Thr	Cys	Ser	Gln	Asp	Thr	Arg	Gln	Gln	Gly
		20						25					30		
Gly	Thr	Ala	Gly	Pro	Ala	Ser	Gln	Gly	Arg	Gly	Gly	His	His	Cys	His
	35						40					45			
Ser	Arg	Gly	Pro	Asp	Trp	Gln	Gln	Lys	Gly	Arg	Leu	Arg	Arg	Lys	Val
	50					55					60				
Ser	Arg	Lys	Gln	Asp	Arg	Gly	Trp	Thr	Asn	Gly	Leu	Pro	Gln	Pro	His
65				70					75					80	
Thr	Pro	Pro	Arg	Gln	Glu	Arg	Cys	Leu	Ala	Arg	Gly	Arg	Arg	Val	Gly
			85					90						95	
Glu	Leu	Thr	Glu	Trp	Ala	Ala	Gly	His	Gly	Pro					
			100					105							

<210> 3243

<211> 944

<212> DNA

<213> Homo sapiens

<400> 3243

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 ttccccacc tttggtctgg ggcaaggag acttacggag tgacaaaggg aaaagtctgc
 120
 tttgagggca aggtaaccca gaattctcca atgaaagaag gctgcacaga ggtctctctc
 180
 cttcagattg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct
 240
 tacggttttc atggacaggg actcaaggca gaaaatggac aatttgagga atttggccag
 300

acttttgggg agaattgatgt tattggctgc ttgtctaatt ttgagactga agaagtagaa
 360
 ctttccttct ccaagaatgg agaagacctt ggtgtggcat tetggatcag caaggattcc
 420
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgttgt agaattaaac
 480
 ttcggtcaga aggaggagcc cttctcccca ccaccagaag agtttgtgtt cattcatgct
 540
 gtgcctgttg aggagcgtgt acgcaactgca gtccctccca agaccataga ggaatgtgag
 600
 gtgattctga tgggtgggact acccggtatct ggaagagccc agtggggcact gaaatatgca
 660
 aaagaaaacc ctgagaaaag atacaatgtc ctggggagctg agactgtgct caatcaaagt
 720
 aggatgaagg gtctcgagga gccagagatg gacccccaaa gccgagacct tttagttcag
 780
 caagcctccc agtgcccttag taagctggtc cagattgctt cccggacaaa gaggaacttt
 840
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag
 900
 acctctcttc ggaaagtggg ggtggttgtc cctaagtagg aaga
 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

Asp Leu His Phe Gln Val Ser Lys Asp Arg Tyr Gly Gly Gln Pro Leu
 1 5 10 15
 Phe Ser Glu Lys Phe Pro Thr Leu Trp Ser Gly Ala Arg Ser Thr Tyr
 20 25 30
 Gly Val Thr Lys Gly Lys Val Cys Phe Glu Ala Lys Val Thr Gln Asn
 35 40 45
 Leu Pro Met Lys Glu Gly Cys Thr Glu Val Ser Leu Leu Arg Val Gly
 50 55 60
 Trp Ser Val Asp Phe Ser Arg Pro Gln Leu Gly Glu Asp Glu Phe Ser
 65 70 75 80
 Tyr Gly Phe Asp Gly Arg Gly Leu Lys Ala Glu Asn Gly Gln Phe Glu
 85 90 95
 Glu Phe Gly Gln Thr Phe Gly Glu Asn Asp Val Ile Gly Cys Phe Ala
 100 105 110
 Asn Phe Glu Thr Glu Glu Val Glu Leu Ser Phe Ser Lys Asn Gly Glu
 115 120 125
 Asp Leu Gly Val Ala Phe Trp Ile Ser Lys Asp Ser Leu Ala Asp Arg
 130 135 140
 Ala Leu Leu Pro His Val Leu Cys Lys Asn Cys Val Val Glu Leu Asn
 145 150 155 160
 Phe Gly Gln Lys Glu Glu Pro Phe Phe Pro Pro Glu Glu Phe Val
 165 170 175
 Phe Ile His Ala Val Pro Val Glu Glu Arg Val Arg Thr Ala Val Pro
 180 185 190
 Pro Lys Thr Ile Glu Glu Cys Glu Val Ile Leu Met Val Gly Leu Pro

	195		200		205
Gly Ser	Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro				
210		215		220	
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met					
225	230	235	240		
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp					
	245	250	255		
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile					
	260	265	270		
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr					
	275	280	285		
Asn Ser Gly Gln Arg Arg Lys Leu Leu Phe Lys Thr Phe Ser Arg					
	290	295	300		
Lys Val Val Val Val Val Pro Asn Glu Glu					
305	310				

<210> 3245

<211> 980

<212> DNA

<213> Homo sapiens

<400> 3245

tgggtatgagg gttctccctc caggccggga ctgacaccac tggccaggaa gtggctgaag
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 ctacagctgga tgaggatggg gatttggacg tggtgagaag accacagacc gcctctgatt
 120
 ccaaccacgc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag
 180
 acgacgtcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga atagggtggt
 240
 cggggcgcccc tgctcctggc agactacatc ctgttccgac aggaacctct cggaggatgt
 300
 acagcgctgg agctcggggc cggcacgggg ctgcctagca tcatcgacgc caccatggca
 360
 cggaccgttt attgtacaga tgtcgggtgca gatcttttgt ccatgtgccca gcgaacatt
 420
 gccctcaaca gccacctggc tgccactgga ggtggtatag ttagggtcaa agaactggac
 480
 tggctgaagg acgacctctg cacagatccc aaggtccccct tcagttggtc acaagaggaa
 540
 atttctgacc tgtaacgatca caccaccatc ctgtttgcag ccgaagtgtt ttacgcagac
 600
 gaacttgactg atgctgtgtt taaaacgctc tcccgactcg ccacagattt gaaaatgcc
 660
 tgcacagcca tactgtcggg ggagaagagg ctcaacttca cactgagaca cttggacgtc
 720
 acatgtgaag cctacgatca ctcccgctcc tgctgcacgc cgctggagca gctcacagat
 780
 ggcaagctgc gcttcgtggt ggagcccggt gaggcctcct tccacagct cctgttttac
 840
 gagcgccctcc agcagctgga gctctggaag atcatcgcac aaccagtaac atgaccacac
 900
 gctccacca ggcgcggcgt ctgcactggt cttagagtgt atttctagta aaatcagaag
 960

ctcaccacaaag caaaaaaaaaa
980

<210> 3246

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3246

Val	Trp	Arg	Gly	Ala	Leu	Leu	Leu	Ala	Asp	Tyr	Ile	Leu	Phe	Arg	Gln
1			5						10				15		
Asp	Leu	Phe	Arg	Gly	Cys	Thr	Ala	Leu	Glu	Leu	Gly	Ala	Gly	Thr	Gly
			20					25				30			
Leu	Ala	Ser	Ile	Ile	Ala	Ala	Thr	Met	Ala	Arg	Thr	Val	Tyr	Cys	Thr
		35					40					45			
Asp	Val	Gly	Ala	Asp	Leu	Leu	Ser	Met	Cys	Gln	Arg	Asn	Ile	Ala	Leu
	50					55				60					
Asn	Ser	His	Leu	Ala	Ala	Thr	Gly	Gly	Gly	Ile	Val	Arg	Val	Lys	Glu
65			70					75						80	
Leu	Asp	Trp	Leu	Lys	Asp	Asp	Leu	Cys	Thr	Asp	Pro	Lys	Val	Pro	Phe
		85						90				95			
Ser	Trp	Ser	Gln	Glu	Glu	Ile	Ser	Asp	Leu	Tyr	Asp	His	Thr	Thr	Ile
		100					105					110			
Leu	Phe	Ala	Ala	Glu	Val	Phe	Tyr	Asp	Asp	Leu	Thr	Asp	Ala	Val	
	115					120					125				
Phe	Lys	Thr	Leu	Ser	Arg	Leu	Ala	His	Arg	Leu	Lys	Asn	Ala	Cys	Thr
	130				135					140					
Ala	Ile	Leu	Ser	Val	Glu	Lys	Arg	Leu	Asn	Phe	Thr	Leu	Arg	His	Leu
145			150						155					160	
Asp	Val	Thr	Cys	Glu	Ala	Tyr	Asp	His	Phe	Arg	Ser	Cys	Leu	His	Ala
		165							170			175			
Leu	Glu	Gln	Leu	Thr	Asp	Gly	Lys	Leu	Arg	Phe	Val	Val	Glu	Pro	Val
	180						185					190			
Glu	Ala	Ser	Phe	Pro	Gln	Leu	Leu	Val	Tyr	Glu	Arg	Leu	Gln	Gln	Leu
	195					200						205			
Glu	Leu	Trp	Lys	Ile	Ile	Ala	Glu	Pro	Val	Thr					
	210					215									

<210> 3247

<211> 977

<212> DNA

<213> Homo sapiens

<400> 3247

ntctagaacc cagccctgtg gaagtatgtg cggtccaggg gctgtgtgct ggagtgaggta
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cgcaacatcg tggccaaccg cctggcctcg gatggggcca cctgggcaga catcttcaag
120
agggtcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccggcgat
240
gtggtggtgg ctgacaagac ctoggagctc taccagaaga cctactgggc cagctacaac
300

ataccgtcct tcgagactgt gttcaatgcc agtgggctgc agggccctagt ggcccagtat
 360
 ggggactggt tttcttatga cgggagcccc cgggcccaga tcttcggcg gaaccagtca
 420
 ctggtacaag acatggactc catggtcagg ctgatgaggt acaatgactt cctccatgac
 480
 cctctgtcac tgtgcaaagc ctgcaacccc cagcccaatg gggagaatgc tatctccgcc
 540
 cgctccgacc tcaaccgggc caatggctcc tacccttcc aggccttaag tcagcgctcc
 600
 catgggggta tcgatgtgaa ggtgaccagc atgtcactgg ccaggatcct gagcctgctg
 660
 gcggccagcg gtcccacgtg ggaccaggtg ccccggttcc agtggagcac ctgcgccctc
 720
 agcggcctgc tgcacatggg ccagccagac ctctggaagt tcgcgcctgt caaggtttca
 780
 tgggactgaa gttctgtccc tgctctgctg ctttcgcccc tgctgacctt cgtcagggtc
 840
 acccccgctc caaggccacc ggacttctaa ctccagcccc tcttgggggc ttctgtctct
 900
 gatctggggg ctgagtcata tcctcctaga gtgggtcacg aacctgatgg ggctcagaac
 960
 tgacccccct tctcccc
 977

<210> 3248

<211> 260

<212> PRT

<213> Homo sapiens

<400> 3248

Asn Pro Ala Leu Trp Lys Tyr Val Arg Pro Arg Gly Cys Val Leu Glu
 1 5 10 15
 Trp Val Arg Asn Ile Val Ala Asn Arg Leu Ala Ser Asp Gly Ala Thr
 20 25 30
 Trp Ala Asp Ile Phe Lys Arg Phe Asn Ser Gly Thr Tyr Asn Asn Gln
 35 40 45
 Trp Met Ile Val Asp Tyr Lys Ala Phe Ile Pro Gly Gly Pro Ser Pro
 50 55 60
 Gly Ser Arg Val Leu Thr Ile Leu Glu Gln Ile Pro Gly Met Val Val
 65 70 75 80
 Val Ala Asp Lys Thr Ser Glu Leu Tyr Gln Lys Thr Tyr Trp Ala Ser
 85 90 95
 Tyr Asn Ile Pro Ser Phe Glu Thr Val Phe Asn Ala Ser Gly Leu Gln
 100 105 110
 Ala Leu Val Ala Gln Tyr Gly Asp Trp Phe Ser Tyr Asp Gly Ser Pro
 115 120 125
 Arg Ala Gln Ile Phe Arg Arg Asn Gln Ser Leu Val Gln Asp Met Asp
 130 135 140
 Ser Met Val Arg Leu Met Arg Tyr Asn Asp Phe Leu His Asp Pro Leu
 145 150 155 160
 Ser Leu Cys Lys Ala Cys Asn Pro Gln Pro Asn Gly Glu Asn Ala Ile
 165 170 175
 Ser Ala Arg Ser Asp Leu Asn Pro Ala Asn Gly Ser Tyr Pro Phe Gln

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      180              185              190
Ala Leu Arg Gln Arg Ser His Gly Gly Ile Asp Val Lys Val Thr Ser
      195              200              205
Met Ser Leu Ala Arg Ile Leu Ser Leu Leu Ala Ala Ser Gly Pro Thr
      210              215              220
Trp Asp Gln Val Pro Pro Phe Gln Trp Ser Thr Ser Pro Phe Ser Gly
      225              230              235              240
Leu Leu His Met Gly Gln Pro Asp Leu Trp Lys Phe Ala Pro Val Lys
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 cccaacgggg acacctacga agggagctac gaattcggta aaagacatgg ccagggggatc
 420
 tacaaattta aaaatgggtgc tcgatataatc ggagaatatg ttagaaaataa aaagcacggt
 480
 caaggcactt ttatatatcc agatggatcc agatatgaag gagagtgggc aaatgacctg
 540
 cggcacggcc atggcgata ctactacatc aataatgaca cctacactgg agagtgggtt
 600
 gctcatcaaaa ggcattgggca aggcacctat ttatacgcag agacgggcag taagtatgtt
 660
 ggcaacctggg tgaacggaca gcaggagggc acggccgagc tcattcacct gaaccacagg
 720
 tacc
 724

<210> 3256

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3256

Ser Cys Leu Gln Thr Arg Glu Glu Ile Leu Ala Asp Thr Ser Gln Leu
 1 5 10 15
 Ala Ala Asn Pro Glu Gly Ser Ala Glu Pro Arg Lys Glu Tyr Glu Gly
 20 25 30
 Gly Arg Asn Glu Ala Gly Glu Arg His Gly Arg Gly Arg Ala Arg Leu
 35 40 45
 Pro Asn Gly Asp Thr Tyr Glu Gly Ser Tyr Glu Phe Gly Lys Arg His
 50 55 60
 Gly Gln Gly Ile Tyr Lys Phe Lys Asn Gly Ala Arg Tyr Ile Gly Glu
 65 70 75 80
 Tyr Val Arg Asn Lys Lys His Gly Gln Gly Thr Phe Ile Tyr Pro Asp
 85 90 95
 Gly Ser Arg Tyr Glu Gly Glu Trp Ala Asn Asp Leu Arg His Gly His
 100 105 110
 Gly Val Tyr Tyr Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe
 115 120 125
 Ala His Gln Arg His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly
 130 135 140
 Ser Lys Tyr Val Gly Thr Trp Val Asn Gly Gln Glu Gly Thr Ala
 145 150 155 160
 Glu Leu Ile His Leu Asn His Arg Tyr -

165

<210> 3257

<211> 368

<212> DNA

<213> Homo sapiens

<400> 3257

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nnccgggggt acatagactc cccacacctac agccggcagg gcatgtcccc caccttctcc
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120
agtgaagaca tcagccagac ctccaagtac agtcccatct actcgccaga ccctactat
180
gcttcggagt ctgagtactg gacctaccat gggcccccca aagtgccccg agccagaagg
240
ttctcgtctg gaggagagga ggatgatttt gaccgcagca tgcacaagct ccaaagtgga
300
attggccggc tgattctgaa ggaagaaatg aaggcccggt cgagctccta tgcagatccc
360
tggcgcgc
368

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<210> 3258

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3258

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Xaa Pro Gly Tyr Ile Asp Ser Pro Thr Tyr Ser Arg Gln Gly Met Ser
 1             5             10             15
Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu
      20             25             30
Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser
      35             40             45
Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser
      50             55             60
Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg
      65             70             75             80
Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys
      85             90             95
Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala
      100            105            110
Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg
      115            120

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<210> 3259

<211> 747

<212> DNA

<213> Homo sapiens

<400> 3259

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acggtgaaag ggcgaccct ctgctgcagc actggccacc ccggacacgc tgcagggcca
60

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gtgctcagcc ttcgtacagc tctgggccgg cctgcagccc atcttgtgtg gcaacaaccg
 120
 caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacagagcaa
 180
 ggagcagcgg aacctggggc ttctcgtgca cctcatgacc agcaacccca aatcctgtta
 240
 cgcgcctgcg ggctctgagg tcgaccgcgt catcctcaag gccaacgaga cttttgcttt
 300
 tgtgggcaac gtgactcact atgcccaggt ctggctcaac atctcggcgg agatccgcag
 360
 cttcctggag cagggcaggc tgcagacaaca cctgcgctgg ctgcagcagt atgtagcaga
 420
 gctgcggctg caccgccagg cactgaacct gtcactggat gagctgccgc cggccctgag
 480
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 540
 caacgcggcc tgcggctgga tccagttcat gtccaagggt agcgtggaca tcttcaaggg
 600
 cttccccgac gaggagagca ttgtcaacta caccctcaac caggctacc aggacaacgt
 660
 cactgttttt gccagtgtga tcttcagac ccggaaggac ggctcgtccc gcctcacgtg
 720
 cactacaaga tcgccagaa ctccagc
 747

<210> 3260

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

Met	Ser	Ser	Leu	Gly	Phe	Thr	Ser	Lys	Glu	Gln	Arg	Asn	Leu	Gly	Leu
1				5				10					15		
Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
		20						25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35					40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
	50					55					60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90						95	
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
		100						105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115					120					125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
		130				135						140			
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145					150					155				160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170						175	
Phe	Gln	Thr	Arg	Lys	Asp	Gly	Ser	Ser	Arg	Leu	Thr	Cys	Thr	Thr	Arg

180
Ser Ala Arg Thr Pro
195

185

190

<210> 3261
<211> 1323
<212> DNA
<213> Homo sapiens

<400> 3261
nnacgcgtac agccaccttc cttaccgccc gccctgccgg gagcctgctt cttatcattt
60
gcacccctatt gctttcctca cctgccatct cacacgtggc tgcctgtgtg tgcctcctgtg
120
tgctgtgccca attgtgtttt ttgctctgtg gtacattttg gttttatttg ggggtgtgtg
180
tgatgatttc ctttgttccg gtgttctgtc tccctcctgt ggtgtgtgtg ggggtgctgt
240
gcccgctgct tgcgcctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt
300
gaggtgtggc tcaggaccca cctgaagggt gatgatctgg aggagggtgt cacaagtga
360
gagtttgata aattccttga agaaagagcc aaagctgctg aaatgggtcc cgacctcccc
420
tcgcccccca tggaggctcc tgcctcagcc tcaaacctct ctggccggaa gaagccagag
480
cggtcagagg atgcctctct cgccctgtga gcagctctgt ggtttgcctc ccagatggc
540
gggtccccgc ttgcaccccg tggacacccg gcaactggcca ctctacatc ccagctccca
600
cacggcctgc acacctgtgt tccatggaa atgccaccgt gtctgtctcc aggcctccca
660
ctagttagga ccagcttcag ccacttcttt tctctgagtg gtgggacaac tgcagccaga
720
gactctctcc cctcccacca tgggcccctc tgcccatgtt tcttcccagg aagagcgggc
780
agagtggccc agccccaggc agtgcctctc gagcagacca cccggactgt ctttctctca
840
ccgcgccatg gagaagagc acgcccggcc ccgcccgtgt ctcacctctg cctggctcag
900
tgacctttct aggcattctg ccctctctgg cccctctctc cctgaagggg ctttgtggga
960
tctctggaag agcagggtgt gctgcactca tgggcctggt ctactcctt ggaactgtca
1020
ccttgtgaca tttggtttac cagcatttga gaaggctctg ctgggtctcc atggtggggg
1080
tctctacct tcttgacct ctctccatca ttcagctgccc agcccaggct tcacacccaa
1140
gctggctcag cagccgagcc tggcaccgag ggtccctgca ggctccctgg gcaggagag
1200
ggccaaggac aattgggagg gcagcaggca gcccgagat ggtggccatg tggcacgctg
1260
ctgagacgac actaccaata aaccaaactg ccacgcacaa aaaaaaaaaa aaaaaaaaaa
1320

aaa
1323

<210> 3262
<211> 81
<212> PRT
<213> Homo sapiens

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<400> 3262
Ile Pro Val Ala Gln Pro Ser Val Met Asp Asp Ile Glu Val Trp Leu
1          5          10          15
Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Gly Val Thr Ser Glu
20          25          30
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val
35          40          45
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn
50          55          60
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala
65          70          75          80
Leu

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<210> 3263
<211> 1128
<212> DNA
<213> Homo sapiens

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<400> 3263
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cggggacgca agggccgggg cgggggtccc ccgtcctcct ctgactccga gcccgaggcc
120
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc
180
gccaggaaac ctggccagaa ggagaagaga gtgcggcccc aggagaagca acaagccaag
240
cccgtgaagg tggagcggac ccggaagcgg tccgagggct tctcgatgga caggaaggta
300
gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag
360
tttgccctaa aggtcgacag cccggacgtg aaggggtgct tgaatgcctt agaggagctg
420
ggaaccctgc aggtgacctc tcagatcctc cagaagaaca cagacgtggt gcccaccttg
480
aagaagattc gccgttaca agcgaacaag gacgtaatgg agaaggcagc agaagtctat
540
accggctca agtcgcgggt cctcggtcca aagatcgagg cggctgcagaa agtgaacaag
600
gctgggatgg agaaggagaa ggccgaggag aagctggccc gggaggagct ggccggggag
660
gaggcccccc aggagaaggc ggaggacaag ccagcaccgc atctctcagc cccagtgaat
720
ggcgaaggcca catcacagaa gggggagagc gcagaggaca aggagcacga ggagggtcgg
780

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gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag
 840
 ggtccccgacc tggacaggcc tgggagcgac cggcaggagc gcgagagggc acggggggag
 900
 tcggaggccc tggacaggga gagctgagcc gcgggcagcc aggcccgacc cccgcccag
 960
 ctcaggctgc cctctctctt ccccgctcg caggagagca gagcagagaa ctgtggggaa
 1020
 cgctgtgctg tttgtatttg ttccttggg ttttttttc ctgcctaatt tctgtgattt
 1080
 ccaaccaaca tgaatgact ataaatgggt tttttaatga aaaaaaaa
 1128

<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

Ser	Arg	Tyr	Arg	Arg	Ser	Ser	Gly	Asp	Glu	Leu	Arg	Glu	Asp	Asp	Glu
1				5					10				15		
Pro	Val	Lys	Lys	Arg	Gly	Arg	Lys	Gly	Arg	Gly	Arg	Gly	Pro	Pro	Ser
		20					25					30			
Ser	Ser	Asp	Ser	Glu	Pro	Glu	Ala	Glu	Leu	Glu	Arg	Glu	Ala	Lys	Lys
		35					40				45				
Ser	Ala	Lys	Lys	Pro	Gln	Ser	Ser	Ser	Thr	Glu	Pro	Ala	Arg	Lys	Pro
	50				55					60					
Gly	Gln	Lys	Glu	Lys	Arg	Val	Arg	Pro	Glu	Glu	Lys	Gln	Gln	Ala	Lys
65					70				75					80	
Pro	Val	Lys	Val	Glu	Arg	Thr	Arg	Lys	Arg	Ser	Glu	Gly	Phe	Ser	Met
				85				90					95		
Asp	Arg	Lys	Val	Glu	Lys	Lys	Lys	Glu	Pro	Ser	Val	Glu	Glu	Lys	Leu
			100					105					110		
Gln	Lys	Leu	His	Ser	Glu	Ile	Lys	Phe	Ala	Leu	Lys	Val	Asp	Ser	Pro
		115					120					125			
Asp	Val	Lys	Gly	Cys	Leu	Asn	Ala	Leu	Glu	Glu	Leu	Gly	Thr	Leu	Gln
	130				135						140				
Val	Thr	Ser	Gln	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Val	Val	Ala	Thr	Leu
145					150					155				160	
Lys	Lys	Ile	Arg	Arg	Tyr	Lys	Ala	Asn	Lys	Asp	Val	Met	Glu	Lys	Ala
			165					170					175		
Ala	Glu	Val	Tyr	Thr	Arg	Leu	Lys	Ser	Arg	Val	Leu	Gly	Pro	Lys	Ile
		180						185					190		
Glu	Ala	Val	Gln	Lys	Val	Asn	Lys	Ala	Gly	Met	Glu	Lys	Glu	Lys	Ala
		195					200					205			
Glu	Glu	Lys	Leu	Ala	Gly	Glu	Glu	Leu	Ala	Gly	Glu	Glu	Ala	Pro	Gln
		210					215				220				
Glu	Lys	Ala	Glu	Asp	Lys	Pro	Ser	Thr	Asp	Leu	Ser	Ala	Pro	Val	Asn
225					230					235				240	
Gly	Glu	Ala	Thr	Ser	Gln	Lys	Gly	Glu	Ser	Ala	Glu	Asp	Lys	Glu	His
			245					250					255		
Glu	Glu	Gly	Arg	Asp	Ser	Glu	Glu	Gly	Pro	Arg	Cys	Gly	Ser	Ser	Glu
			260					265					270		
Asp	Leu	His	Asp	Ser	Val	Arg	Glu	Gly	Pro	Asp	Leu	Asp	Arg	Pro	Gly

275 280 285
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu
 290 295 300
 Asp Glu Glu Ser
 305

<210> 3265
 <211> 524
 <212> DNA
 <213> Homo sapiens

<400> 3265
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 60
 ctttttcgtg gttttcaaaa tgtttcatt gagggcgat tactttata atcaacaaaa
 120
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa
 180
 ggtacattat tgttgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca
 240
 gtcatgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac
 300
 ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gccctggtgc acggtgctgg
 360
 ttgccccaggc gcatgctggc ggaggggtgtg gggcacgtgg gtctcgggac aggaagccca
 420
 ggcagggtctc aacttggtg cactgcccc cttgccacc tcactcctaga gggagcacc
 480
 agaggggtcca gcctcgctcc ccttctctc cagctccac gcgt
 524

<210> 3266
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3266
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu
 1 5 10 15
 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg
 20 25 30
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro
 35 40 45
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu
 50 55 60
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala
 65 70 75 80
 Pro Arg

<210> 3267
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3267
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 60
 tggaatacat tgaataaaaa ggtcgcacaa agaattgcac agctacagga agctttgttg
 120
 cattgtggga agtttcaaga tgccttggag ccattgtcga gctggttggc agataccgag
 180
 gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc
 240
 caagaacaga agttgtctcca gcggctccta gatgatcgaa aggccacagt agacatgctt
 300
 caagcagaag gaggcagaat agcccagtcg gcagagctgg ctgatagaga gaaaatcact
 360
 ggacagctgg agagtcttga aagtagatgg act
 393

<210> 3268
 <211> 131
 <212> FRT
 <213> Homo sapiens

<400> 3268
 Val Glu Tyr Ala Cys Arg Val Gln Gly Leu Glu His Asp Met Glu Glu
 1 5 10 15
 Ile Asn Ala Arg Trp Asn Thr Leu Asn Lys Lys Val Ala Gln Arg Ile
 20 25 30
 Ala Gln Leu Gln Glu Ala Leu Leu His Cys Gly Lys Phe Gln Asp Ala
 35 40 45
 Leu Glu Pro Leu Leu Ser Trp Leu Ala Asp Thr Glu Glu Leu Ile Ala
 50 55 60
 Asn Gln Lys Pro Pro Ser Ala Glu Tyr Lys Val Val Lys Ala Gln Ile
 65 70 75 80
 Gln Glu Gln Lys Leu Leu Gln Arg Leu Leu Asp Asp Arg Lys Ala Thr
 85 90 95
 Val Asp Met Leu Gln Ala Glu Gly Gly Arg Ile Ala Gln Ser Ala Glu
 100 105 110
 Leu Ala Asp Arg Glu Lys Ile Thr Gly Gln Leu Glu Ser Leu Glu Ser
 115 120 125
 Arg Trp Thr
 130

<210> 3269
 <211> 1423
 <212> DNA
 <213> Homo sapiens

<400> 3269
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 60
 tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata
 120
 aaatatagga tgtggaagcg aaaaaaatc tgggtagcaa gtgaggtgta ctcaaaaata
 180

agcaaaagtc acgtgggtct gattttatcac cctcgctgga aagcttggtc tcagacacac
 240
 tgttactgca agtgtgtgtg agggggaaac tctcacacac ttgacagttg aggacagggc
 300
 tagactttga ggtggaccct ggctcccagg gctgtgtact cccagcccggt gtttctcttt
 360
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaaga
 420
 atttgaagac aagaaggttg agctgaaaga gaacctgatt gctgagctag aaaaaagaa
 480
 gaaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa
 540
 acctatcatg accagaaagt tcgggagcgc accaaatgat cccgtcccca tccagacaa
 600
 gaggaggaaa cctgctccag cccagctaaa ctatttgta acagatgaac agatcatgga
 660
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catctctctc
 720
 tgagcaacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcgataga
 780
 agatggcaaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga
 840
 gtcaaaggac aaccagaaac tgagctgcgt gatcagttct gtaggagcca atgagatctg
 900
 ggtgaggaa gacaagtaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcgg
 960
 gctcttcgtg atccgcgcgc gctcagctgc ttgactttct acagtgtctc tctcttgacc
 1020
 cttttctcgg agtgggtttt atttttgttt tgtttcgttt tctcttaaat agaaaaatgt
 1080
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 1140
 gggcactttt gtggcgggat gcttccaact ttgtcagttc tttctgcctc aactctcttc
 1200
 agacatcagt caccatgaga ctgttttact ttcaggcgta ttgggggggt tgatttactt
 1260
 tccttttatt tctttatttt ttgcttatac ttgtttttga aaacctctc tgagtttgaa
 1320
 gggacagcta tttttattga ttatctttaa gtctctctac catggagaag agcaggaagg
 1380
 gatacactct ccagtgcatc ttcatgtttt gaatcggtt agt
 1423

<210> 3270

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3270

Met Ile Glu Asn Glu Met Leu Thr Met Glu Leu Asn Gly Asp Ser Met

1

5

10

15

Glu Val Lys Pro Ile Met Thr Arg Lys Leu Arg Arg Arg Pro Asn Asp

20

25

30

Pro Val Pro Ile Pro Asp Lys Arg Arg Lys Pro Ala Pro Ala Gln Leu

```

      35          40          45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
 50          55          60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
 65          70          75          80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85          90          95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
 100          105          110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
 115          120          125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
 130          135          140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
 145          150          155          160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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<210> 3271

<211> 464

<212> DNA

<213> Homo sapiens

<400> 3271

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 120
ggcagctctgt ggcctctggcc cctccagttc ctgtgtcacca ggagataggc aatgcagctg
 180
atgagaaggg ccccgccagc aagagatcca atgatggtgg ccgcccaggat cccagcggtg
 240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagctctg
 300
gccttcacag tccattcaga gttgatggta atggctactt ggtaggtgcc actgtctgta
 360
ggctggggcg ggcgcagcag catggaacca ttgggggaag ccacgatgtc tcgctgtccc
 420
atggcactgc catccctctg aggcggtgt atccccaggg atgt
 464

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<210> 3272

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3272

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Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
 1          5          10          15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
 20          25          30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
 35          40          45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

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```

      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
100              105              110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
115              120              125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
130              135              140

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<210> 3273

<211> 387

<212> DNA

<213> Homo sapiens

<400> 3273

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180
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<210> 3274

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3274

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20              25              30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
35              40              45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
50              55              60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65              70              75              80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
85              90              95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
100              105              110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

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Gly	115	120	125
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<212>	DNA		
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<400>	3275		
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240	agcgtccggg gcccggettta gttaggagct atggctaacc atcatcctga ttgtatcttt		
300	tggcgcaagc aggcgtgggt tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt		
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420	tatggatctt accagggggc ctgtgtgtat tgtggaggac ctgggggtctc tgatgcctat		
480	tattgttaag agtgaccat ccaggagaag gacagagatg gctgccccaa gattgtcaat		
540	ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg		
600	tgattgtgtg gtggccctct cctcccccca acatcagctt gctgcagctg ccagaaaaaa		
660	tgcctactac taccagcaga aagggagcag agcccagagc atcaccagga gtgcctgtcta		
720	gtgtaactgg agcttgccac cccctcctct cccttccccc agacacgttg tagggatgga		
780	aaaggattct tcacagagca ctctggcaca ccatatcgga gaaaaattga tagattagtt		
840	aatgggtttt ctgaaattcg agaagcatag atctgttctc catatttgta tgttctccct		
900	aaccaacgat cttctaaaaa gaaataatat tttagtcttc tgcttgagga actgactgtg		
960	aagcgacgcc cagtgaaaaa catgatcttg cagcagctct ggtggcagct gtcccttgagg		
1020	aaccttttgt gtgtgggtgg aagctatcag aacaagaaat gtaggcattt cccgtttttt		
1080	gtgggggggg ggtggggggg cagggtctgc cctcttgtaa aggcattttac ttgtttaaca		
1140	ctgtctccag tacagtgagg tacagtacct ggctattcac aggcacatc atagcccact		
1200	agtctcatat tattttcctt ttgagaaatt ggaacctctt tctgttgcta ttatattaat		
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1266	aaaaaa		

<210> 3276
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3276
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 20 25 30
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 35 40 45
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro
 50 55 60
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys
 65 70 75 80
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr
 85 90 95
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg
 100 105 110

<210> 3277
 <211> 1435
 <212> DNA
 <213> Homo sapiens

<400> 3277
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 120
 cagacttccg tctccttaaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc
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 actcgtgcgt cattgtctgc agggccgagg gagcgggtgca aggccgccgc gtgacgtcag
 240
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 300
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 420
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 660
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 720
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 780

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 840
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 1080
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<210> 3278

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3278

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Tyr	Ser	Met	Val	Ala	Gly	Ala	Gly	Arg	Glu	Asn	Gly	Met	Glu	Thr	Pro
			20				25					30			
Met	His	Glu	Asn	Pro	Glu	Trp	Glu	Lys	Ala	Arg	Gln	Ala	Leu	Ala	Ser
		35				40				45					
Ile	Ser	Lys	Ser	Gly	Ala	Ala	Gly	Gly	Ser	Ala	Lys	Ser	Ser	Ser	Asn
		50			55					60					
Gly	Pro	Val	Ala	Ser	Ala	Ser	Thr	Cys	Pro	Arg	Gln	Lys	Pro	Gln	Leu
65					70				75					80	
Cys	Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Thr	Ser	Ser	Thr	Thr	Met	Pro
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Thr	Pro	Thr	Ala	Thr	Thr	Ile	Pro								

<210> 3279

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 3279

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 240
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 960
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 1020
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<210> 3280

<211> 376

<212> PRT

<213> Homo sapiens

<400> 3280

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Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
			35			40					45				
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
			50			55					60				
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
				70				75					80		
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
				85				90					95		
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

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100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
145      150      155
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
225      230      235
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
305      310      315
Pro Val Ala Glu Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
340      345      350
Asp Thr Ser Asn Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
370      375

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<210> 3281

<211> 842

<212> DNA

<213> Homo sapiens

<400> 3281

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300
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360

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 842

<210> 3282

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3282

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Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
			20					25					30		
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
		35				40					45				
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
	50				55					60					
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65				70						75				80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
			85					90					95		
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
		100					105					110			
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala
		115				120						125			
Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
	130					135					140				
Arg	Asp														
145															

<210> 3283

<211> 3268

<212> DNA

<213> Homo sapiens

<400> 3283

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3258

<210> 3284
 <211> 1012
 <212> PRT
 <213> Homo sapiens

<400> 3284
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 35 40 45
 Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met
 50 55 60
 Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln
 65 70 75 80
 Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg
 85 90 95
 Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met
 100 105 110
 Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys
 115 120 125
 Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr
 130 135 140
 Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln
 145 150 155 160
 Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser
 165 170 175
 Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu
 180 185 190
 Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp
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 210 215 220
 Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val
 225 230 235 240
 Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg
 245 250 255
 Tyr Gln Asn Leu Val Lys Glu Tyr Ser Ser Leu Glu Glu Gln Arg Tyr Asp
 260 265 270
 Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg
 275 280 285
 Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro
 290 295 300
 Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln
 305 310 315 320
 Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe
 325 330 335
 Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Lys Lys
 340 345 350
 Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val
 355 360 365
 Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

370		375		380
Leu Ala Tyr Asn Ser	Leu Lys Arg Gln Glu	Leu Glu Ser Glu Asn Lys		
385	390	395	400	
Lys Leu Lys Asn Asp	Leu Asn Glu Leu Arg Lys	Ala Val Ala Asp Gln		
405	410	415		
Ala Thr Gln Asn Asn Ser Ser His Gly Ser Pro Asp Ser Tyr Ser Leu				
420	425	430		
Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys				
435	440	445		
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg				
450	455	460		
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser				
465	470	475	480	
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala				
485	490	495		
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Glu Ala Gln Leu Gln				
500	505	510		
Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln				
515	520	525		
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys				
530	535	540		
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln				
545	550	555	560	
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu				
565	570	575		
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys				
580	585	590		
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala				
595	600	605		
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln				
610	615	620		
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp				
625	630	635	640	
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met				
645	650	655		
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys				
660	665	670		
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu				
675	680	685		
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn				
690	695	700		
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu				
705	710	715	720	
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln				
725	730	735		
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr				
740	745	750		
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln				
755	760	765		
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala				
770	775	780		
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr				
785	790	795	800	
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr				

```

      805      810      815
Cys Leu Glu Ala Ile Ile Arg Gln Met Asn Ala Phe His Thr Val Met
      820      825      830
Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe Lys Gln
      835      840      845
Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu Leu Arg
      850      855      860
Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr Asn Ile
      865      870      875      880
Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln Ser Gly
      885      890      895
Ala Val Gln Thr Met Glu Pro Leu Ile Gln Ala Ala Gln Leu Leu Gln
      900      905      910
Leu Lys Lys Lys Thr Gln Glu Asp Ala Glu Ala Ile Cys Ser Leu Cys
      915      920      925
Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu Tyr Thr
      930      935      940
Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile Arg Thr
      945      950      955      960
Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp Pro Gln Gln Leu Leu Leu
      965      970      975
Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro Ser Ser
      980      985      990
Leu Thr Met Asp Ser Ile His Ile Pro Ala Cys Leu Asn Leu Glu Phe
      995      1000      1005
Leu Asn Glu Val
      1010

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<210> 3285

<211> 1518

<212> DNA

<213> Homo sapiens

<400> 3285

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60
aacctgatga caccaccact ttattttgag ctaaatcctc atttaagtga gaacaggaca
120
gggttcacca ctgcctcctt tggcaacttg agtgggtggtg ttcccaccga gtttatgggt
180
gcaaaagatag gtcttttctc gtatttatgt ataaacaggt accagttttg attttattta
240
atcatttcac acattaacat acatgacaca tcaaaatgag aaatgcacag tttaaccggt
300
caacagctgg ccttacttca aaagaacact atattcatat taaacattta cagtctttcc
360
atctaacttt acacatgtcc taaatcattt tccagcactt ctcacataga agtctagtgt
420
tgctctttaa aatcaccatc tgtatcaccc ctagtagacg cgagggtttc cccaattaca
480
tgctgaagag agccagccac caccacacct aaagacatcc aagcagctcc agagcctgcc
540
tccgaggcca ccccttcgcc acggcagctc cgattccaag aactgattat ctgacactag
600

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tgaaccagca ctaaaggctg taggatgtga ctacatcaca gttccagaag gaaggggacc
 660
 atggccaaga gaagccctaa atgacagaag ctattataaa ccaagtcgcc caaacctcct
 720
 gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcataacca
 780
 cactctggaa gtggtgaact gttacacatt tggtgtgtgt gtacataaca tcaaaaaacta
 840
 ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tataatctaaa aactaactca
 900
 aatcgttgac cagcactttc ccagtatcat aacaatgcgg ctgacctctc tctgccttca
 960
 ctttacaccc catcatagca cattatttgt gcacaactag tgaggctctg cgggctcatc
 1020
 atccccataa ccaagtcggt ctgtgttgag tcatatcatt ctgtgctggt tttagaagtc
 1080
 accataggaa acatgaagtc acatcctggt caaaaaactg tccatttttc aaaaacagag
 1140
 aaaaacctga gatacaggcg agcaactagc gacacttaca ggaagggaaa gaacaatgac
 1200
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 1260
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 1320
 tcactttgtc cagtgcaccc ctatgttcag ctgccaggac cgattccata cagtgtattg
 1380
 aggttgagga ctgaggacgc ccctttgctc tcgctccatt ttgatttgct ttttccactg
 1440
 aagcacgccc ggccagcggt tccaaaaaca gcttgccatt ggctttgcac tctattcaca
 1500
 actgatcaaa actcaatt
 1518

<210> 3286

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3286

Met	Lys	Ser	His	Pro	Gly	Gln	Lys	Thr	Val	His	Phe	Ser	Lys	Thr	Glu
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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
			20					25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
			35				40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
			50			55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65					70					75				80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
			85					90					95		
Arg	Leu	Arg	Thr	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp
			100					105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp	


```

      35              40              45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
   50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
   65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
   100              105              110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
   115              120              125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
   130              135              140
Gly Arg Gln Leu
145

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<210> 3289

<211> 554

<212> DNA

<213> Homo sapiens

<400> 3289

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acgcgtagtg atctgtgcga ggtcacacag caaatctgtg ggaggctagg gttcaaacct
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cacagcatgg actcttccct gtgtcccggt cctgcctcgg cctcctccca gctcttctct
120
cccagcctcc tagccaata tcagggccgg aggcactgga gaacttcggg ctaaggcagg
180
ctctccctcc cattcacaga gccttgccag ggtggctggc aatggtgaag tccagggcag
240
agatggggac agagggggacg ccttggtatc gactctgtgg tgggtggacc acctcctga
300
gaccaggcat ccacgtcggg cagcacatgc taccagtc acagaagagg aaacagaggc
360
tccgagagga agggactgtg tccaggccgg gaccaggcc cttctgcact gggctaatga
420
gccaaacaca tcaccccgag ccttggggag caggagccgg gccttgagg gtgaggagct
480
gggaaaaagca aagctccatg gaaggcaacc gggaatcatc acaaatagga cataactagt
540
ataagctgca attg
554

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<210> 3290

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3290

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Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
   1              5              10              15
Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
   20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

```

```

          35          40          45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
   50          55          60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
65          70          75          80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
          85          90          95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
100          105          110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
115          120          125
Gly

```

<210> 3291

<211> 1075

<212> DNA

<213> Homo sapiens

<400> 3291

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nngcntatgg ggtgcgcttt acgcgactgc cgtgggagcg cgggtgtgggt ggctgcactt
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ggctgggagcg ccccgcgcggt gccttcgcct gcgcggtgga gcgcgacgcc cgggcgcgcg
120
tggggccctt ctcgccccac gcctgcgggt aggetccccg ccccgctccc taccatagct
180
gcctctgtcc ctcgcactg gctgttcacc tggctagctg tgtccgtttc tcaaccggga
240
agcgagtcctn ggcgtcgacc gctgcgcgca cccagttac cccctccac cccgcgctcc
300
cttccctagc ctacatagcc cttggccatg gcccggcctg gtccacctc tgatgtcccg
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480
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600
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660
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720
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780
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840
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900
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960
ctagggcccg cagagcattt ggtgcccctc catgttgcaa tgcaaacacc ttcaccactg
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gggcagctggg gagagatggc tatattaata aaataacgtg tgcctttcaa aaaaa
1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

Xaa	Xaa	Met	Gly	Cys	Ala	Leu	Arg	Asp	Cys	Arg	Trp	Ser	Ala	Val	Trp
1				5						10				15	
Val	Ala	Ala	Leu	Gly	Trp	Arg	Pro	Pro	Arg	Val	Pro	Ser	Pro	Ala	Pro
			20						25				30		
Trp	Ser	Ala	Thr	Pro	Gly	Pro	Pro	Trp	Ala	Pro	Ser	Pro	Ala	Thr	Pro
		35					40					45			
Ala	Val	Arg	Leu	Pro	Ala	Pro	Ser	Pro	Thr	Ile	Ala	Ala	Ser	Val	Pro
		50				55				60					
Pro	His	Trp	Leu	Phe	Thr	Trp	Leu	Ala	Val	Ser	Val	Ser	Gln	Pro	Gly
65					70					75				80	
Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Gln	Leu	Pro	Pro	Pro	Pro
			85					90					95		
Thr	Pro	Pro	Ser	Leu	Pro										
															100

<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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120
gcaggacgcc gacacctacc cctcagcaga cgccggagag aaatgagtag caacaaagag
180
cagcggctcag cagtgttctg gatectcttt gccctcatca ccatcctcat cctctacagc
240
tccaacagtg ccaatgaggt ctccattac ggctccctgc ggggcogtag ccgccgacct
300
gtcaacctca agaagtggag catcactgac ggctatgtcc ccatctctcg caacaagaca
360
ctgccctctc ggtgccacca gtgtgtgatt gtcagcagct ccagccacct gctgggcacc
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480
actggctact cagctgatgt gggcaacaag accacctacc gcgtcgtggc ccattccagt
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660
cagcgagcgg gcctggtgtt ccccaacatg gaagcatatg ccgtctctcc cgggccgcatg
720

cgggcaatttg acgacctctt ccgggggtgag acggggcaagg acaggggagaa gtctcattcg
780
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1440
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1920
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2340

aaaaaaaaaa aaaaaaaaaa aa
2362

<210> 3294

<211> 353

<212> PRT

<213> Homo sapiens

<400> 3294

Xaa Ser Pro Lys Pro Ala Leu Pro Ala Gly Asp Glu Glu Thr Glu Ala
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Gln Arg Gly His Met Ala Cys Ser Arg Pro Pro Ser Gln Cys Glu Pro
20 25 30
Thr Ser Leu Pro Pro Gly Pro Pro Ala Gly Arg Arg His Leu Pro Leu
35 40 45
Ser Arg Arg Arg Arg Glu Met Ser Ser Asn Lys Glu Gln Arg Ser Ala
50 55 60
Val Phe Val Ile Leu Phe Ala Leu Ile Thr Ile Leu Ile Leu Tyr Ser
65 70 75 80
Ser Asn Ser Ala Asn Glu Val Phe His Tyr Gly Ser Leu Arg Gly Arg
85 90 95
Ser Arg Arg Pro Val Asn Leu Lys Lys Trp Ser Ile Thr Asp Gly Tyr
100 105 110
Val Pro Ile Leu Gly Asn Lys Thr Leu Pro Ser Arg Cys His Gln Cys
115 120 125
Val Ile Val Ser Ser Ser Ser His Leu Leu Gly Thr Lys Leu Gly Pro
130 135 140
Glu Ile Glu Arg Ala Glu Cys Thr Ile Arg Met Asn Asp Ala Pro Thr
145 150 155 160
Thr Gly Tyr Ser Ala Asp Val Gly Asn Lys Thr Thr Tyr Arg Val Val
165 170 175
Ala His Ser Ser Val Phe Arg Val Leu Arg Arg Pro Gln Glu Phe Val
180 185 190
Asn Arg Thr Pro Glu Thr Val Phe Ile Phe Trp Gly Pro Pro Ser Lys
195 200 205
Met Gln Lys Pro Gln Gly Ser Leu Val Arg Val Ile Gln Arg Ala Gly
210 215 220
Leu Val Phe Pro Asn Met Glu Ala Tyr Ala Val Ser Pro Gly Arg Met
225 230 235 240
Arg Gln Phe Asp Asp Leu Phe Arg Gly Glu Thr Gly Lys Asp Arg Glu
245 250 255
Lys Ser His Ser Trp Leu Ser Thr Gly Trp Phe Thr Met Val Ile Ala
260 265 270
Val Glu Leu Cys Asp His Val His Val Tyr Gly Met Val Pro Pro Asn
275 280 285
Tyr Cys Ser Gln Arg Pro Arg Leu Gln Arg Met Pro Tyr His Tyr Tyr
290 295 300
Glu Pro Lys Gly Pro Asp Glu Cys Val Thr Tyr Ile Gln Asn Glu His
305 310 315 320
Ser Arg Lys Gly Asn His His Arg Phe Ile Thr Glu Lys Arg Val Phe
325 330 335
Ser Ser Trp Ala Gln Leu Tyr Gly Ile Thr Phe Ser His Pro Ser Trp
340 345 350
Thr

<210> 3295

<211> 690

<212> DNA

<213> Homo sapiens

<400> 3295

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 120
 gtcagactca ttttcagcct cattaggcag cagacggaga tggagggagg agagcaggag
 180
 gctgggggat gggctctgca ctgcagagac cagcaggagc taaagaagag aggacatggg
 240
 gaactggaaa aataagcctt ccaggattgt ggggagaaa acgctgtggg agaggccagg
 300
 atgctgcatt aggcacagga taacctggga acccaggcac atgggtcctg ctctccgaag
 360
 tctgcaagtc aagaaggaa cagagcagc cgacctctc ctttccctc ctgtctctct
 420
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 480
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 540
 ggaggaccac atggatggac acttcttttt cagcaccagc ggacccttc acctttgagt
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 660
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 690

<210> 3296

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3296

Met Gly Asn Trp Lys Asn Lys Pro Ser Arg Ile Val Gly Arg Lys Thr
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 Leu Trp Glu Arg Pro Gly Cys Cys Ile Arg His Arg Ile Thr Trp Glu
 20 25 30
 Pro Arg His Met Gly Pro Ala Leu Arg Ser Leu Gln Val Lys Lys Gly
 35 40 45
 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly
 50 55 60
 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr
 65 70 75 80
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu
 85 90 95
 Ser Asp Lys Asp Ala Leu Glu Asp His Met Asp Gly His Phe Phe Phe
 100 105 110
 Ser Thr Gln Gly Pro Leu His Leu

115

120

<210> 3297

<211> 3176

<212> DNA

<213> Homo sapiens

<400> 3297

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120
ctgcctcagc ctcccaagta gctgggatta taggtgcccg ccacctgcc tggctaattt
180
ttgtattttt agtaaagatg gggttttgta acattggcca ggctggctctc aaactcctga
240
cctcaactga actgccccca tcgggcttcc aaagtgttgg gattagaggt ctgagctact
300
ggggccgggg aaacttggaa acattttttt ccttcctagt gcctcagttt tctcaaatgt
360
aaaatgggaa taaaatatct accttggtaag acttttggta gggctctaata actgttatat
420
acattatctc atttaactct cacaacaacc tttaaaatag ggatacgaac attctcaatt
480
tacagttgag tgaagtgag gcagttcaga tggcttgact aagggtacct ggcatttgag
540
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<211> 251

<212> FRT

<213> Homo sapiens

<400> 3298

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			85					90					95		
Ser	Pro	Cys	Val	Cys	Leu	Cys	Val	Cys	Ile	Cys	Xaa	Cys	Leu	Cys	Met
			100				105					110			
Cys	Val	Arg	Gly	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Ile	Glu	Arg
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<211> 1387

<212> DNA

<213> Homo sapiens

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<211> 219

<212> PRT

<213> Homo sapiens

<400> 3300

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Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe	50	55	60
Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe	65	70	75
Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg	85	90	95
Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr	100	105	110
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe	115	120	125
Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile	130	135	140
Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro	145	150	155
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys	165	170	175
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu	180	185	190
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Ser Leu Leu Asp Asn Leu Arg Asn Lys Val Ile	210	215	

<210> 3301

<211> 2109

<212> DNA

<213> Homo sapiens

<400> 3301

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<211> 323

<212> PRT

<213> Homo sapiens

<400> 3302

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115           120           125
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130           135           140
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145           150           155           160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
165           170           175           180
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
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Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
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Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
275           280           285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
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<211> 699

<212> DNA

<213> Homo sapiens

<400> 3303

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<211> 233

<212> PRT

<213> Homo sapiens

<400> 3304

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Val	Ala	Glu	Glu	Ala	Ala	Asp	Leu	Asp	Gly	Glu	Ile	Asp	Leu	Ser	Ala
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Cys	Tyr	Asp	Val	Thr	Glu	Tyr	Pro	Val	Gln	Arg	Asn	Tyr	Gly	Phe	Gln
			100						105				110		
Ile	His	Thr	Lys	Glu	Gly	Glu	Phe	Thr	Leu	Ser	Ala	Met	Thr	Ser	Gly
			115					120				125			
Ile	Arg	Arg	Asn	Trp	Ile	Gln	Thr	Ile	Met	Lys	His	Val	His	Pro	Thr
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Thr	Ala	Pro	Asp	Val	Thr	Ser	Ser	Leu	Pro	Glu	Glu	Lys	Asn	Lys	Ser
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Ser	Cys	Ser	Phe	Glu	Thr	Cys	Pro	Arg	Ser	Thr	Glu	Lys	Gln	Glu	Ala
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<210> 3306

<211> 319

<212> PRT

<213> Homo sapiens

<400> 3306

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Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu
 35           40           45
Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
 50           55           60
Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
 65           70           75           80
Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
 85           90           95
Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
100           105           110
Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
115           120           125
Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
130           135           140
Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
145           150           155           160
Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
165           170           175
Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
180           185           190
Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
195           200           205
Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
210           215           220
Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
225           230           235           240
Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
245           250           255
Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
260           265           270
Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
275           280           285
Ser His Leu Cys Gln Gln Ser Leu Pro Ser Cys Thr Asp Val Pro Gly
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<210> 3307

<211> 352

<212> DNA

<213> Homo sapiens

<400> 3307

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<210> 3308
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3308
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 20 25 30
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 35 40 45
 Trp Asp Cys Asp Ile Gly Arg Arg Gly Arg Ser Pro Ala Leu Ser Ser
 50 55 60
 Ala Gly Trp Ala Gly Ile His Leu Ala Ala Ser Gln Gly Leu Cys Pro
 65 70 75 80
 Ala Gly Trp Ser Leu Cys Cys Pro Asn Gln Val Ser Thr Phe Pro Ala
 85 90 95
 Pro Met Arg Arg Glu Gly Gly Arg Trp Trp Leu Gly Trp Arg
 100 105 110

<210> 3309
 <211> 737
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 180
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 300
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 360
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 420
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 480

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 600
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<210> 3310
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 <212> PRT
 <213> Homo sapiens

<400> 3310
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 20 25 30
 Ala Gln Leu Glu Glu Gln Phe Tyr Leu Gln Ala Leu Lys Leu Pro Asn
 35 40 45
 Gln Thr His Pro Asp Val Pro Val Gly Asp Glu Ser Gln Ala Arg Val
 50 55 60
 Leu His Met Val Gly Asp Lys Pro Val Phe Ser Phe Gln Pro Arg Gly
 65 70 75 80
 His Leu Glu Ile Gly Glu Lys Leu Asp Ile Ile Arg Gln Lys Arg Leu
 85 90 95
 Ser His Val Ser Gly His Arg Ser Tyr Tyr Leu Arg Gly Ala Gly Ala
 100 105 110
 Leu Leu Gln His Gly Leu Val Asn Phe Thr Phe Asn Lys Leu Leu Arg
 115 120 125
 Arg Gly Phe Thr Pro Met Thr Val Pro Asp Leu Leu Arg Gly Ala Val
 130 135 140
 Phe Glu Gly Cys Gly Met Thr Pro Asn Ala Asn Pro Ser Gln Ile Tyr
 145 150 155 160
 Asn Ile Asp Pro Ala Arg Phe Lys Asp Leu Asn Leu Ala Gly Thr Ala
 165 170 175
 Glu Val Gly Leu Ala Gly Tyr Phe Met Asp His Thr Val Ala Phe Arg
 180 185 190
 Asp Leu Pro Val Arg Met Val Cys Ser Ser Thr Cys Tyr Arg Ala Glu
 195 200 205
 Thr Asn
 210

<210> 3311
 <211> 486
 <212> DNA
 <213> Homo sapiens

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<210> 3312

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3312

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Ala	Glu	Gly	Gly	Tyr	Gln	Arg	Tyr	Gly	Val	Arg	Ser	Tyr	Leu	His	Gln
		20						25				30			
Phe	Tyr	Glu	Asp	Cys	Thr	Ala	Ser	Ile	Trp	Glu	Tyr	Glu	Asp	Asp	Phe
		35						40				45			
Gln	Ile	Gln	Arg	Ser	Pro	Asn	Arg	Trp	Ser	Ser	Val	Phe	Trp	Lys	Val
		50				55					60				
Gly	Leu	Ile	Ser	Gly	Thr	Val	Phe	Val	Ile	Leu	Gly	Leu	Thr	Val	Leu
65				70					75				80		
Ala	Val	Gly	Phe	Leu	Val	Pro	Pro	Lys	Ile	Glu	Ala	Phe	Gly	Glu	Ala
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<210> 3313

<211> 1791

<212> DNA

<213> Homo sapiens

<400> 3313

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480
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<210> 3314

<211> 537

<212> PRT

<213> Homo sapiens

<400> 3314

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 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly
 35 40 45
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His
 50 55 60
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu
 65 70 75 80
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr
 85 90 95
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu
 100 105 110
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp
 115 120 125
 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr
 130 135 140
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly
 145 150 155 160
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr
 165 170 175
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg
 180 185 190
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu
 195 200 205
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Leu Asn Gly Ala Asp
 210 215 220
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr
 225 230 235 240
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys
 245 250 255
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala
 260 265 270
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser
 275 280 285
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg
 290 295 300
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser
 305 310 315 320
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly
 325 330 335
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys
 340 345 350
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly
 355 360 365
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val
 370 375 380
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys
 385 390 395 400
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

	405		410		415
Asp Gly Thr Ser Ser Tyr Lys Asp Phe Ala Met Ser Lys Asn Asn Arg					
	420		425		430
Phe Thr Ser Ala Gly Gln Ala Ser Lys Asn Ile Ile Gln Pro Pro Ser					
	435		440		445
Cys Val Leu His Tyr Tyr Asn Val Pro Leu Cys Val Thr Glu Glu Thr					
	450		455		460
Phe Thr Lys Leu Cys Asn Asp His Glu Val Leu Thr Phe Ile Lys Tyr					
	465		470		475
Lys Val Phe Asp Ala Lys Pro Ser Ala Lys Thr Leu Ser Gly Leu Leu					
	485		490		495
Glu Trp Glu Cys Lys Thr Asp Ala Val Glu Ala Leu Thr Ala Leu Asn					
	500		505		510
His Tyr Gln Ile Arg Val Pro Asn Gly Ser Asn Pro Tyr Thr Leu Lys					
	515		520		525
Leu Cys Phe Ser Thr Ser Ser His Leu					
	530		535		

<210> 3315

<211> 934

<212> DNA

<213> Homo sapiens

<400> 3315

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240
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780
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840
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900

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934

<210> 3316
<211> 187
<212> PRT
<213> Homo sapiens

<400> 3316
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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu
35 40 45
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys
50 55 60
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val
65 70 75 80
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile
85 90 95
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu
100 105 110
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys
115 120 125
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu
130 135 140
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys
145 150 155 160
Asn Phe Lys Lys Lys Arg Ile Val Thr Thr Pro Gln Thr Val Leu Arg
165 170 175
Ile Asn Ser Ile Glu Ile Ala Pro Cys Leu Leu
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<210> 3317
<211> 1665
<212> DNA
<213> Homo sapiens

<400> 3317
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120
aaaagaagct gaaaaaaaa gatgccaaga ctggaagcat cgaagatggt gagccctttc
180
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420

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<210> 3318

<211> 253

<212> PRT

<213> Homo sapiens

<400> 3318

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 20 25 30
 Glu Lys Arg Glu Glu Arg Arg Arg Glu Leu Glu Lys Lys Arg Leu

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      35              40              45
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Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile
  65              70              75              80
Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys
      85              90              95
Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu
  100              105              110
Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
  115              120              125
Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His
  130              135              140
Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr
  145              150              155              160
His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg
  165              170              175
Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
  180              185              190
Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
  195              200              205
Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
  210              215              220
Pro Arg Lys Glu Arg Leu Ala Asn Lys Val Phe Ile Lys Pro Lys Lys
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<210> 3319

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 3319

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<211> 521

<212> PRT

<213> Homo sapiens

<400> 3328

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 100 105 110
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 130 135 140
 Ala Ser Arg Asn Leu Ala Phe Tyr Pro Pro His Pro Asp Tyr Thr Trp
 145 150 155 160
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 Val Gln Met Tyr Val Cys Asn Lys Glu Glu Tyr Gly Phe Leu Pro Val
 180 185 190
 Pro Leu Arg Ala His Ser Thr Leu Gln Asp Glu Ala Glu Ser Phe Met
 195 200 205
 His Val Gln Leu Glu Val Met Val Lys His Pro Pro Ala Glu Pro Ser
 210 215 220
 Arg Phe Ile Ser Ala Pro Thr Lys Thr Pro Asp Lys Met Gly Phe Asp
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 Glu Val Phe Met Ile Asn Leu Arg Arg Arg Gln Asp Arg Arg Glu Arg
 245 250 255
 Met Leu Arg Ala Leu Gln Ala Gln Glu Ile Glu Cys Arg Leu Val Glu

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290	295	300
Thr Lys Gly Glu Leu Gly Cys Phe Leu Ser His Tyr Asn Ile Trp Lys		
305	310	315
Glu Val Val Asp Arg Gly Leu Gln Lys Ser Leu Val Phe Glu Asp Asp		
325	330	335
Leu Arg Phe Glu Ile Phe Phe Lys Arg Arg Leu Met Asn Leu Met Arg		
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Lys Arg Met Gln Val Glu His Pro Glu Lys Ala Val Pro Arg Val Arg		
370	375	380
Asn Leu Val Glu Ala Asp Tyr Ser Tyr Trp Thr Leu Ala Tyr Val Ile		
385	390	395
Ser Leu Gln Gly Ala Arg Lys Leu Leu Ala Ala Glu Pro Leu Ser Lys		
405	410	415
Met Leu Pro Val Asp Glu Phe Leu Pro Val Met Phe Asp Lys His Pro		
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Val Ser Glu Tyr Lys Ala His Phe Ser Leu Arg Asn Leu His Ala Phe		
435	440	445
Ser Val Glu Pro Leu Leu Ile Tyr Pro Thr His Tyr Thr Gly Asp Asp		
450	455	460
Gly Tyr Val Ser Asp Thr Glu Thr Ser Val Val Trp Asn Asn Glu His		
465	470	475
Val Lys Thr Asp Trp Asp Arg Ala Lys Ser Gln Lys Met Arg Glu Gln		
485	490	495
Gln Ala Leu Ser Arg Glu Ala Lys Asn Ser Asp Val Leu Gln Ser Pro		
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<211> 705

<212> DNA

<213> Homo sapiens

<400> 3329

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<210> 3330
 <211> 235
 <212> FRT
 <213> Homo sapiens

<400> 3330
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 35 40 45
 Pro Val Pro Thr Leu Ala Phe Thr His Val Ala Arg Ala Gln Ala Gly
 50 55 60
 Met Tyr His Cys Leu Ala Glu Leu Pro Thr Gly Ala Ala Ala Ser Ala
 65 70 75 80
 Pro Val Met Leu Arg Val Leu Tyr Pro Pro Lys Thr Pro Thr Met Met
 85 90 95
 Val Phe Val Glu Pro Glu Gly Gly Leu Arg Gly Ile Leu Asp Cys Arg
 100 105 110
 Val Asp Ser Glu Pro Leu Ala Ser Leu Thr Leu His Leu Gly Ser Arg
 115 120 125
 Leu Val Ala Ser Ser Gln Pro Gln Gly Ala Pro Ala Glu Pro His Ile
 130 135 140
 His Val Leu Ala Ser Pro Asn Ala Leu Arg Val Asp Ile Glu Ala Leu
 145 150 155 160
 Arg Pro Ser Asp Gln Gly Glu Tyr Ile Cys Ser Ala Ser Asn Val Leu
 165 170 175
 Gly Ser Ala Ser Thr Ser Thr Tyr Phe Gly Val Arg Ala Leu His Arg
 180 185 190
 Leu His Gln Phe Gln Gln Leu Leu Trp Val Leu Gly Leu Leu Val Gly
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 <212> DNA
 <213> Homo sapiens

<400> 3331

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35 40 45
Met Ser Ser Cys Arg Val Asp Lys Pro Ser Glu Ile Val Asp Val Gly
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Asp Lys Val Trp Val Lys Leu Ile Gly Arg Glu Met Lys Asn Asp Arg
65 70 75 80
Ile Lys Val Ser Leu Ser Met Lys Val Val Asn Gln Gly Thr Gly Lys
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<212> DNA
<213> Homo sapiens

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<210> 3334

<211> 672

<212> PRT

<213> Homo sapiens

<400> 3334

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Ala	Ala	Val	Gln	Pro	Ala	Glu	Val	Thr	Val	Glu	Val	Gly	Glu	Asp	Leu
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His	Met	His	His	Val	Arg	Asp	Arg	Glu	Met	Pro	Glu	Ala	Leu	Glu	Phe
	50					55				60					
Asn	Leu	Ser	Ala	Asn	Pro	Glu	Ser	Ser	Thr	Ile	Phe	Gln	Arg	Asn	Ser
65				70					75					80	
Gln	Thr	Glu	Ala	Leu	Glu	Phe	Asn	Pro	Ser	Ala	Asn	Pro	Glu	Ala	Ser
			85						90					95	
Thr	Ile	Phe	Gln	Arg	Asn	Ser	Gln	Thr	Asp	Val	Val	Glu	Ile	Arg	Arg
			100					105					110		
Ser	Asn	Cys	Thr	Asn	His	Val	Ser	Ala	Val	Arg	Phe	Ser	Gln	Gln	Tyr
		115					120					125			
Ser	Leu	Cys	Ser	Thr	Ile	Phe	Leu	Asp	Asp	Ser	Thr	Ala	Ile	Gln	His
	130					135					140				
Tyr	Leu	Thr	Met	Thr	Ile	Ile	Ser	Val	Thr	Leu	Glu	Ile	Pro	His	His
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			165						170					175	
Leu	His	Ser	Phe	Ala	Val	Ser	Thr	Val	His	Ile	Met	Lys	Lys	Arg	Asn
			180					185					190		
Gly	Gly	Gly	Ser	Leu	Asn	Asn	Tyr	Ser	Ser	Ser	Ile	Pro	Ser	Thr	Pro
		195					200					205			
Ser	Thr	Ser	Gln	Glu	Asp	Pro	Gln	Phe	Ser	Val	Pro	Pro	Thr	Ala	Asn
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225					230					235				240	
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Gly	Met	Leu	Leu	Lys	Arg	Ser	Gly	Lys	Trp	Leu	Lys	Thr	Trp	Lys	Lys
		275					280					285			
Lys	Tyr	Val	Thr	Leu	Cys	Ser	Asn	Gly	Met	Leu	Thr	Tyr	Tyr	Ser	Ser
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Leu	Gly	Asp	Tyr	Met	Lys	Asn	Ile	His	Lys	Lys	Glu	Ile	Asp	Leu	Gln
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Thr	Ser	Thr	Ile	Lys	Val	Pro	Gly	Lys	Trp	Pro	Ser	Leu	Ala	Thr	Ser

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          370                      375                      380
Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val
          385                      390                      395
Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu
          405                      410                      415
Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu
          420                      425                      430
Gln Ser Cys Glu Ser Ser Lys Ser Lys Ser Gln Leu Thr Ser Gln Ser
          435                      440                      445
Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His
          450                      455                      460
Cys Val Asp Cys Glu Thr Gln Asn Pro Lys Trp Ala Ser Leu Asn Leu
          465                      470                      475
Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly
          485                      490                      495
Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val
          500                      505                      510
Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser
          515                      520                      525
Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser
          530                      535                      540
Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys
          545                      550                      555
Leu Phe Leu Ala Pro Leu Pro Cys Thr Glu Leu Ser Leu Gly Gln Gln
          565                      570                      575
Leu Leu Arg Ala Thr Ala Asp Glu Asp Leu Gln Thr Ala Ile Leu Leu
          580                      585                      590
Leu Ala His Gly Ser Arg Glu Glu Val Asn Glu Thr Cys Gly Glu Gly
          595                      600                      605
Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val
          610                      615                      620
Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp
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Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln
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<210> 3335

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3335

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120

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<210> 3336

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3336

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His Trp Asn Ala Leu Ala Val Ile Pro Ala Arg
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<210> 3337

<211> 679

<212> DNA

<213> Homo sapiens

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 Lys Lys Gly Lys Lys Arg Lys Arg Asp Thr Pro Gln Arg Gly Gly
 20 25 30
 Lys Glu Val Arg Trp Gly Ser Leu Ser Leu Ala Ser Lys Asp Thr Asp
 35 40 45
 Arg Val Arg Glu Arg Asp Arg Glu Arg His Arg Asp Arg Gln Arg Pro
 50 55 60
 Lys Gln Lys Arg Gln Thr Ala Lys Thr Lys Gln Asn Gln Cys Lys Leu
 65 70 75 80
 Glu Lys Lys Ile Lys Leu Asn Ile Arg Ala Gly Lys Ser His Leu Leu
 85 90 95
 Arg Ile Thr Pro Val Tyr
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<210> 3339
 <211> 1341
 <212> DNA
 <213> Homo sapiens

<400> 3339
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 300
 ctcaagatcca cctggaatga etaaagaatg gaagttctgt atccacctgt gttaaaactg
 360
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 420
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<210> 3340

<211> 86

<212> PRT

<213> Homo sapiens

<400> 3340

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Ser	Val	Asn	Ile	Phe	Leu	Tyr	Gln	Asn	Cys	Tyr	Tyr	Ala	Ala	Phe	Ile
		20					25					30			
Trp	Ala	Gly	Phe	Ile	Ile	Leu	His	Cys	Glu	Ile	Ala	Leu	Gln	Cys	Ile
		35				40					45				
Thr	Thr	Ala	Arg	Arg	Thr	Tyr	Ile	Tyr	Ile	Tyr	Ile	Lys	Asn	Ile	Ser
		50			55					60					
Asp	Ser	Cys	Ile	Gln	Met	Ser	Lys	Val	Phe	Val	Ala	Thr	Tyr	Tyr	Ile
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Ala	Tyr	Thr	Gln	Asn	His										
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<210> 3341

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3341

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 120

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 180
 ctactgtat gtcaagtaaa gctgagaatg aagcggagag catcagacag agggagctggg
 240
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 360
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 480
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 aagatgaaga agcgcactct cctcgtcctg gactgcctct gtgctcatga cttcagcgat
 660
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 720
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<210> 3342

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3342

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			20						25				30		
Gly	Pro	Phe	Ile	Leu	Gly	Pro	Arg	Leu	Gly	Asn	Ser	Pro	Val	Pro	Ser
			35					40					45		
Ile	Val	Gln	Cys	Leu	Ala	Arg	Lys	Asp	Gly	Thr	Asp	Asp	Phe	Tyr	Gln
			50				55				60				
Leu	Lys	Ile	Leu	Thr	Leu	Glu	Glu	Arg	Gly	Asp	Gln	Gly	Ile	Glu	Ser
65					70					75				80	
Gln	Glu	Glu	Arg	Gln	Gly	Lys	Met	Leu	Leu	His	Thr	Glu	Tyr	Ser	Leu
					85				90					95	
Leu	Ser	Leu	Leu	His	Thr	Gln	Asp	Gly	Val	Val	His	His	His	Gly	Leu

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          100          105          110
Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg
    115          120          125
Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu
    130          135          140
Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln
    145          150          155          160
His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val
    165          170          175
Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn
    180          185          190
Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg
    195          200          205
Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val
    210          215          220
Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile
    225          230          235          240
Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp
    245          250          255
Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe
    260          265          270
Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala
    275          280          285
Ala Glu Tyr Thr Ile Pro Glu Asp Gly Arg Val Ser Glu Asn Thr Val
    290          295          300
Cys Leu Ile Arg
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<210> 3343

<211> 594

<212> DNA

<213> Homo sapiens

<400> 3343

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594

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<210> 3344
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 3344
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 20 25 30
 Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly
 35 40 45
 Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
 50 55 60
 Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
 65 70 75 80
 Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr
 85 90 95
 Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
 100 105 110
 Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr
 115 120 125
 Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu
 130 135 140

<210> 3345
 <211> 1149
 <212> DNA
 <213> Homo sapiens

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 420
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 480
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<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

Met	Glu	Tyr	Asp	Glu	Lys	Leu	Ala	Arg	Phe	Arg	Gln	Ala	His	Leu	Asn
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			20					25				30			
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35				40					45				
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50				55					60					
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
65				70					75					80	
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85					90						95	
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
		100					105					110			
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
	115				120						125				
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130			135						140					
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
145				150					155					160	
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
		165						170						175	
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
		180					185						190		
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
	195						200					205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
	210				215					220					
Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

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 <210> 3348
 <211> 288
 <212> PRT
 <213> Homo sapiens

 <400> 3348
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 35 40 45
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met
 50 55 60
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met
 65 70 75 80
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val
 85 90 95
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ala Asp Tyr Glu
 100 105 110

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Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His
      115              120              125
Val Ala Gly Ala Ala Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp
      130              135              140
Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe
145      150      155      160
Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu
      165              170              175
Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg
      180              185              190
Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp
195      200      205
Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu
210      215      220
Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu
225      230      235      240
Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu
      245              250              255
Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala
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<210> 3349

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3349

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720

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 1132

<210> 3350

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3350

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 Gln Gly Leu Ala Val Tyr Ala Ser Pro Glu Asn Lys Lys Leu Phe Glu
 35 40 45
 Glu Glu Lys Leu Leu Arg Gln Glu Gly Lys Leu Glu Lys Ile Gln Thr
 50 55 60
 Lys Ala Gly Glu Ala Thr Val Lys Phe Leu Lys Ser Cys Arg Leu Glu
 65 70 75 80
 Val Gly Met Lys Asn Asn Val Lys Trp Glu Leu Asn Pro Glu Ile Val
 85 90 95
 Ala Arg His Phe Lys Asn Leu Gly Val Val Val Ala Pro His Thr
 100 105 110
 Leu Lys Leu Pro Ala Glu Pro Ile Thr Arg Trp Gly Glu Tyr Trp Cys
 115 120 125
 Glu Val Thr Val Asn Gly Leu Asp Thr Val Arg Val Pro Met Ser Val
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 Val Asn Phe Glu Lys Pro Lys Thr Lys Arg Tyr Lys Tyr Trp Leu Ala
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 Gln Gln Ala Ala Lys Ala Met Ala Pro Thr Ser Pro Gln Ile
 165 170

<210> 3351

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 3351

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 1140
 ggagatcaac aggttggcgg atgaactgaa cccctcaac gctccccagg agattgagct
 1200
 ctgctggac cggtggcgc aggtcttgca ggtggccatg gcctcaggag ctctgtgtgtg
 1260
 cagcagagat gaccttagaa ccttgttctc caggctcccc cgtaataacc tctctcagct
 1320
 ggtgatctcg ggtcccgctc agcagtcgcc tcacgcgcgc ctccccccgg ggttctaccc
 1380
 ccacatccac acgccccgc tgggctacgg ggctgtcccc cc
 1422

<210> 3352

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3352

Met Trp Pro Ser Gln Leu Leu Ile Phe Met Met Leu Leu Ala Pro Ile

1

5

10

15

Ile His Gly Gly Lys His Ser Glu Arg His Pro Ala Leu Ala Ala Ala

```

                20                25                30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Val Val Pro Pro Gly His
                35                40                45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
                50                55                60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
65                70                75                80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
                85                90                95
Ser

```

<210> 3353

<211> 420

<212> DNA

<213> Homo sapiens

<400> 3353

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nngaagctat cctcaccctc tccccgacct cggctcctgtg aagtcctcgg aattaacatc
60
tttccatctc ctgaccagcc tgccaatgtg cctgtcctcc cacctgccat gaacacgggg
120
ggctccctac ctgacctcac caacctgcac tttccccac cactgccac cccctggac
180
cctgaagaga cagcctaccc tagcctgagt gggggcaaca gtacctccaa ttgacctcac
240
accatgactc acctgggcat cagcaggggc atgggcctgg gcccaggcta tgatgcacca
300
gggcgtcccc ctggatacca gtaactgtc cactgaccag cggttacccc cataccata
360
cagttcccca agtttggtn tctgcttacc agccccacac cccaaagttt taacagcagc
420

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<210> 3354

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3354

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Xaa Lys Leu Ser Ser Ser Ser Ser Arg Pro Arg Ser Cys Glu Val Pro
1                5                10                15
Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
                20                25                30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
35                40                45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
50                55                60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65                70                75                80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
85                90                95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
                100                105

```

<210> 3355

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3355

gaacagccag ttgaacctga tggccccctt cctggctcag acaataacca agaaaagaaa
 60
 gtaagattat ctccagccaa aatgtcaacc aagaattcta cagatctagt tgaatatgtt
 120
 gacaagagtc atgctttttct ccccatcatt ccaaacaccc agagagggtca gctagaagac
 180
 agactgaaca accaggcgcg taccatagct ttcctttctg aacaagcctt ccgcatcaag
 240
 gaggacatct ctgcttgcct gcaggggacc catggctttc gaaaagagga atcgctcgcc
 300
 aggaagttac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa
 360
 aatattgaga ttttagaaga ccaataaga gctcgagatc aggcggccac aggaactaac
 420
 ttgcagtac acgagataaa catcaaacac ctacaaggag ttgggagatc tttc
 474

<210> 3356

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3356

Met	Ser	Thr	Lys	Asn	Ser	Thr	Asp	Leu	Val	Glu	Tyr	Val	Asp	Lys	Ser
1				5					10					15	
His	Ala	Phe	Leu	Pro	Ile	Ile	Pro	Asn	Thr	Gln	Arg	Gly	Gln	Leu	Glu
			20						25				30		
Asp	Arg	Leu	Asn	Asn	Gln	Ala	Arg	Thr	Ile	Ala	Phe	Leu	Leu	Glu	Gln
		35				40						45			
Ala	Phe	Arg	Ile	Lys	Glu	Asp	Ile	Ser	Ala	Cys	Leu	Gln	Gly	Thr	His
		50				55					60				
Gly	Phe	Arg	Lys	Glu	Glu	Ser	Leu	Ala	Arg	Lys	Leu	Leu	Glu	Ser	His
				70						75				80	
Ile	Gln	Thr	Ile	Thr	Ser	Ile	Val	Lys	Lys	Leu	Ser	Gln	Asn	Ile	Glu
			85						90					95	
Ile	Leu	Glu	Asp	Gln	Ile	Arg	Ala	Arg	Asp	Gln	Ala	Ala	Thr	Gly	Thr
			100					105					110		
Asn	Phe	Ala	Val	His	Glu	Ile	Asn	Ile	Lys	His	Leu	Gln	Gly	Val	Gly
			115				120					125			
Arg	Ser	Phe													
			130												

<210> 3357

<211> 2268

<212> DNA

<213> Homo sapiens

<400> 3357

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agcagccatt atggatttgg atgtgctctt tatacccatg tctctaattg cagatggagg
120
aggggcctata aaaataattc cttctctgctt acaaatgtca gcaattcca tgttttctga
180
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttggcca ctgtaatgat
240
ttctccata gataggtagc tctgctggga ggaacgggtt tggcgtgtgg gacgcagctg
300
cctctgtact ggggagtcac ggagtggcgg ggctccaggg acatggcggc ggccctctgcg
360
gtgtcgggtgc tgctgggtggc ggcggagagg aaccggtggc atogtctccc gagcctgctc
420
ctgccgccga ggacatgggt gtggaggcaa agaaccatga agtacacaac agccacagga
480
agaaaacatta ccaaggctct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc
540
acagccaaaa aactgggtgt acagactgtg gcggtttata gtgaggctga cagaatttc
600
atgcatgtag atatggcaga tgaagcatat tccatcggcc ccgctccctc ccagcagagc
660
tacctatcta tggagaaaat cattcaagtg gccaaagac ctgctgcaca ggctatccat
720
ccaggatgcg gttttcttcc agaaaacatg gaatttgctg aactttgtaa gcaagaagga
780
attattttta taggcctctc tccatctgca attagagaca tgggtataaa gagcacatcc
840
aaatccataa tggctgctgc tggagtacct gttgtggagg gttatcatgg tgaggaccaa
900
tcagaccagt gcttgaagga acacgccagg agaattggct atcctgtcat gattaaagcc
960
gtccgggggt gaggaggaaa aggaatgagg attgttagat cagaacaaga atttcaagaa
1020
cagtttagat cagcacggag agaagctaag aagtctttca atgatgatgc tatgctgatc
1080
gagaaagttag tagacacacc gaggcattga gaagtccagg tgtttgtgta tcacatggc
1140
aatgctgtgt acttgtttga aagagactgt agtgctgcga ggcgacatca gaagatcatt
1200
gaggaggccc cagcgctcgg tattaatct gaagtaagaa aaaagctggg agaagctgca
1260
gtcagagctg ctaaagctgt aaattatggt ggagcagggg ctgtggagtt tattatggac
1320
tcaaaacata atttctgttt catggagatg aatacaaggc tgcaagtgga acatcctggt
1380
actgagatga tcacaggaac tgacttgggt gagtggcagc ttagaattgc agcagagag
1440
aagatttcct tgagccagga agaaataact ctgcagggcc atgccttcga agctagaata
1500
tatgcagaag atcctagcaa taacttcatg cctgtggcag gccattagt gcacctctct
1560
actcctcgag cagacccttc caccaggatt gaaactggag tacggcaagg agacgaagtt
1620

tccgtgcatt atgaccccat gattgogaag ctggtctgtt gggcagcaga tcgccaggcg
 1680
 gcattgacaa aactgaggta cagccttcgt cagtacaata ttgttggact gcacaccaac
 1740
 attgacttct tactcaacct gtctggccac ccagagtttg aagctgggaa cgtgcacact
 1800
 gatttcatec ctcaacacca caaacagttg ttgtcagtc ggaaggctgc agccaaagag
 1860
 tctttatgcc aggcagccct gggctctcgc ctcaaggaga aagccatgac cgacactttc
 1920
 actcttcagg cacatgatca attctctcca tttctgtcta gcagtggag aagactgaat
 1980
 atctcgata ccagaaacat gactcttaaa gatggtaaaa acagttttcg tctcctcgga
 2040
 taatcaacca ttccatact catgtaatct aggcatactc tggagtatt acaggtttgg
 2100
 ttccagacca ctacaataaa atgtagccat agctgtaacg tataaccatg atgggtctta
 2160
 tagcatgcag attgaagata aaactttcca agtccttggg aatctttaca gcgagggaga
 2220
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 2268

<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

Gln Thr Val Ala Val Tyr Ser Glu Ala Asp Arg Asn Ser Met His Val
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 Asp Met Ala Asp Glu Ala Tyr Ser Ile Gly Pro Ala Pro Ser Gln Gln
 20 25 30
 Ser Tyr Leu Ser Met Glu Lys Ile Ile Gln Val Ala Lys Thr Ser Ala
 35 40 45
 Ala Gln Ala Ile His Pro Gly Cys Gly Phe Leu Ser Glu Asn Met Glu
 50 55 60
 Phe Ala Glu Leu Cys Lys Gln Glu Gly Ile Ile Phe Ile Gly Pro Pro
 65 70 75 80
 Pro Ser Ala Ile Arg Asp Met Gly Ile Lys Ser Thr Ser Lys Ser Ile
 85 90 95
 Met Ala Ala Ala Gly Val Pro Val Val Glu Gly Tyr His Gly Glu Asp
 100 105 110
 Gln Ser Asp Gln Cys Leu Lys Glu His Ala Arg Arg Ile Gly Tyr Pro
 115 120 125
 Val Met Ile Lys Ala Val Arg Gly Gly Gly Lys Gly Met Arg Ile
 130 135 140
 Val Arg Ser Glu Gln Glu Phe Gln Glu Gln Leu Glu Ser Ala Arg Arg
 145 150 155 160
 Glu Ala Lys Lys Ser Phe Asn Asp Asp Ala Met Leu Ile Glu Lys Phe
 165 170 175
 Val Asp Thr Pro Arg His Val Glu Val Gln Val Phe Gly Asp His His
 180 185 190
 Gly Asn Ala Val Tyr Leu Phe Glu Arg Asp Cys Ser Val Gln Arg Arg

```

      195              200              205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu
      210              215              220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val
      225              230              235              240
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His
      245              250              255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro
      260              265              270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg
      275              280              285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu
      290              295              300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn
      305              310              315              320
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg
      325              330              335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu
      340              345              350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala
      355              360              365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln
      370              375              380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu
      385              390              395              400
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile
      405              410              415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys
      420              425              430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala
      435              440              445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe
      450              455              460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met
      465              470              475              480
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly
      485              490

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<210> 3359

<211> 652

<212> DNA

<213> Homo sapiens

<400> 3359

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gcctatacct actgtagctt ctccacgtat ggaccctaaa ggctactgct gctactacgg
120
ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180
gggaggtaat taaaaaacag tggaatggaa aaacagtgc ttagtcatcc tgtaatatgc
240
tccttgtaaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

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cgcctcttac tagtgaagta ttctgccaat gaagaaaaaca agtatgatta tcttccaact
 360
 actgtgaatg tgtgtctcaga actgggtgaag ctagtcttctc gtgtgcttctg gtcattctctg
 420
 gttataaaga aagatcatca aagtagaagt ttgaaatatg ctctctggaa ggaattctct
 480
 gatttcatag agtgggtccat tctgtccttt ctttatttcc tggataaactt gattgtcttc
 540
 tatgtctctg cctatcttca accagccatg gctgttatct tctcaaatct tagcattata
 600
 acaacagctc ttctattcag gatagtgtg aagaggcgctc taaactggat cc
 652

<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met Glu Lys Gln Cys Cys Ser His Pro Val Ile Cys Ser Leu Ser Thr
 1 5 10 15
 Met Tyr Thr Phe Leu Leu Gly Ala Ile Phe Ile Ala Leu Ser Ser Ser
 20 25 30
 Arg Ile Leu Leu Val Lys Tyr Ser Ala Asn Glu Glu Asn Lys Tyr Asp
 35 40 45
 Tyr Leu Pro Thr Thr Val Asn Val Cys Ser Glu Leu Val Lys Leu Val
 50 55 60
 Phe Cys Val Leu Val Ser Phe Cys Val Ile Lys Lys Asp His Gln Ser
 65 70 75 80
 Arg Asn Leu Lys Tyr Ala Ser Trp Lys Glu Phe Ser Asp Phe Met Lys
 85 90 95
 Trp Ser Ile Pro Ala Phe Leu Tyr Phe Leu Asp Asn Leu Ile Val Phe
 100 105 110
 Tyr Val Leu Ser Tyr Leu Gln Pro Ala Met Ala Val Ile Phe Ser Asn
 115 120 125
 Phe Ser Ile Ile Thr Thr Ala Leu Leu Phe Arg Ile Val Leu Lys Arg
 130 135 140
 Arg Leu Asn Trp Ile
 145

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

ntcccgatg gtctggcgcg ctgggctcgc taggtttgtg ctggcgaggg gacgggggtg
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 gacggcgac ccggaccctaa gaagtgggag gaccgcgcgt gtcgcggcct agcggcgagg
 120
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccgcgc catagcgagc ccgggtctgt
 180
 gatcgccgag gcgggagtg agatagtcca agtccaaaga gacagcgccct ctctcattca
 240

gtcttttgatt atacatcagc atcaccagct cctcaccac caatgcgacc atgggagatg
 300
 acatcaaata ggcagccccc ttcagttcga ccaagccaac atcacttctc aggggaacga
 360
 tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg
 420
 gatcgtctgt ctgcacataa ttccattagt caagatgaaa actatcacca tctcccttac
 480
 gcacagcagc aagcaataga ggagcctcga gccttcacc ctcogaatgt atctccccgt
 540
 ctgctacatc ctgctgctca tccaccccag cagaatgcag tcattggtga catacatgat
 600
 cagctccatc aaggaacagt cctgtttct tacacagtaa caacagtggc accacatggg
 660
 attccactct gcacaggcca gcacatccct gctttagtaga cacagcaggt cccaggatgc
 720
 tctgtggttt tcagtggaca gcacctccct gtctgtagtg tgcctcctcc aatgcttcag
 780
 gcattgtcag ttcagcactt accagtacca tatgtgtcat tcccaccctc tatttttagt
 840
 gatccatttc ttatatactc tcttcacett tctcccccac atctctctca tttgccacca
 900
 ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgcctctgca aaggatagaa
 960
 aatgaagtgg aactcttagg agaacatctt ccaggagccc acccccagca ccccatctgt
 1020
 ttaataaata tctcaactcc
 1040

<210> 3362

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3362

Met Arg Pro Trp Glu Met Thr Ser Asn Arg Gln Pro Pro Ser Val Arg
 1 5 10 15
 Pro Ser Gln His His Phe Ser Gly Glu Arg Cys Asn Thr Pro Ala Arg
 20 25 30
 Asn Arg Arg Ser Pro Pro Val Arg Arg Gln Arg Gly Arg Arg Asp Arg
 35 40 45
 Leu Ser Arg His Asn Ser Ile Ser Gln Asp Glu Asn Tyr His His Leu
 50 55 60
 Pro Tyr Ala Gln Gln Gln Ala Ile Glu Glu Pro Arg Ala Phe His Pro
 65 70 75 80
 Pro Asn Val Ser Pro Arg Leu Leu His Pro Ala Ala His Pro Pro Gln
 85 90 95
 Gln Asn Ala Val Met Val Asp Ile His Asp Gln Leu His Gln Gly Thr
 100 105 110
 Val Pro Val Ser Tyr Thr Val Thr Thr Val Ala Pro His Gly Ile Pro
 115 120 125
 Leu Cys Thr Gly Gln His Ile Pro Ala Cys Ser Thr Gln Gln Val Pro
 130 135 140
 Gly Cys Ser Val Val Phe Ser Gly Gln His Leu Pro Val Cys Ser Val

```

145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
          225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

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<210> 3363

<211> 718

<212> DNA

<213> Homo sapiens

<400> 3363

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120
gtagctcagg agtgtctccg gagccactg gagaagcccc ccaacggcct cctcttcccc
180
cagcacgggg actatcagta cggccgcaac aacatctaaa cagaccactt ccaatacagc
240
cggcagagct acccaaaactc gtacagtttg aaccgctatg atgtgtagag tccaaggac
300
aggaccagac tgttggtgac tccttccccg gceccacag cagtatcaga aactcttgac
360
aatcagtgaa tgtacaaccc agccgagggg acggtgcata actctccatc agaagccctg
420
gggttctctg cccccctga gccgcaggag gatgcgttgc ctgcagtga gacggccgtg
480
agttctgggc aaacctaaac agagaccagt gtcccatgct ctttcttctt ggagcctgtc
540
atctgagggc cgtgtccctg cggagatctt ggccacgttg tacctttcca tgtggaatta
600
ttccccaaag agtgtagctc agagcaactg tgtctgcatt ccagataaca ttcaggacct
660
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718

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<210> 3364

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3364

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Met Gly His Trp Ser Leu Phe Arg Phe Ala Gln Ser Ser Arg Pro Ser
1          5          10          15
Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

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20	25	30
Pro Gly Leu Leu Met Glu Ser Tyr Ala	Pro Ser Pro Arg Leu Gly Cys	
35	40	45
Thr Phe Thr Asp Cys Gln Lys Phe Leu Ile Leu Trp Gly Pro Gly		
50	55	60
Lys Glu Ser Pro Thr Val Trp Ser Cys Pro Leu Asp Ser Thr His His		
65	70	75
Ser Gly Ser Asn Cys Thr Ser Leu Gly Ser Ser Ala Gly Cys Ile Gly		
85	90	95
Ser Gly Leu Phe Arg Cys Cys Cys Gly Arg Thr Asp Ser Pro Arg Ala		
100	105	110
Gly Gly Arg Gly Gly Arg Trp Gly Ala Ser Pro Val Gly Ser Gly Asp		
115	120	125
Thr Pro Glu Leu Leu Gly Arg Gln Cys His Pro Lys Asn His Gly His		
130	135	140
Asp Gly Val Pro Asp His Ala Gly Gln Pro Ile Pro His His Gln Arg		
145	150	155
Ser Trp Ala		160

<210> 3365

<211> 2389

<212> DNA

<213> Homo sapiens

<400> 3365

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120
tcgggtggca gcgcggggcg caacgcaggg gtcacggcga cggcggcggc ggctgacggc
180
tggaagggtt ggcttctctt accgctcgtc ctcttctctc gctccgctcg gtgtcaggcg
240
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300
gcactcttcg ctctgccatc ccccgaccct tcaccccgag gactggcgcg ctctctccgc
360
gcagctgagg gagcgggggc cggctctctg ctcggttctc gagctcccat gtcggataat
420
cagaactgga actcgtcggg ctccggaggag gatccagaga cggagtctgg gccgcctgtg
480
gagcgtctcg gggctcctcag taagtggaca aactacattc atgggtggca ggatcggttg
540
gtagttttga aaaataatgc tctgagttac tacaatctg aagatgaaac agagtatggc
600
tgcaaggat ccatctgtct tagcaaggct gtcacacac ctacagattt tgatgaatgt
660
cgatttgata ttagtgtaaa tgatagtgtt tggatctctc gtgctcagga tccagatcat
720
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780
tccagcttgc gtcgacatgg ctcaatgggt tccctgggtg ctggagcaag tggctactct
840

gcaacatcca cctcttcatt caagaaaggc cacagtttac gtgagaagtt ggctgaaatg
900
gaaacattta gagacatctt atgtagacaa gttgacacgc tacagaagta ctttgatgcc
960
tgtgtgatg ctgtctctaa ggatgaactt caaagggata aagtggtaga agatgatgaa
1020
gatgactttc ctacaacgcg ttctgatggt gacttcttgc atagtaccaa cggcaataaa
1080
gaaaagttat ttccacatgt gacacccaaa ggaattaatg gtatagactt taaaggggaa
1140
gcgataactt ttaaagcaac tactgctgga atccttgcaa cactttctca ttgtattgaa
1200
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1260
agaagaacag aggaagcata taaaaatgca atgacagaac ttaagaaaaa atcccacttt
1320
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1380
gtctgtgaag ctgctcttga cagacaagat aaaatagaag aacagtcaca gagtgaanaa
1440
gtgagattac attggcctac atccttgccc tctggagatg cttttcttct tgtggggaca
1500
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1560
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1620
atgacttact cattacagga tgtaggcgga gatgccaat ggagttggt tgtagaagaa
1680
ggagaaatga aggtatacag aagagaagta gaagaaaaat ggattgttct ggatccttta
1740
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1800
gttgacgttc gcaatgactg ggaacaact atagaaaact ttcattgtgt ggaacatta
1860
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1920
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1980
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2040
gtccgtgcc aataaaatgt tgctatgatt tgtcaaacct tggtaagccc accagaggga
2100
aaccaggaaa tttagcggga caacattcta tgcaagatta catatgtagc taatgtgaac
2160
cctggaggat gggcaccagc ctacagtgtta agggcagtg caaagcgaga gtatcctaaa
2220
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2280
tagtattaac aggtactaga agatattgtt tatctttttt taacttttat tgactaatat
2340
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2389

<210> 3366

<211> 624

<212> PRT

<213> Homo sapiens

<400> 3366

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Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
 1           5           10           15
Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
 20           25           30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
 35           40           45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
 50           55           60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
 65           70           75           80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
 85           90           95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
100           105           110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
115           120           125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
130           135           140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145           150           155           160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
165           170           175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
180           185           190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
195           200           205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
210           215           220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225           230           235           240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
245           250           255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
260           265           270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
275           280           285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
290           295           300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305           310           315           320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
325           330           335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
340           345           350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
355           360           365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
370           375           380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

```

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385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
          465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
          545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
          610          615          620

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<210> 3367

<211> 366

<212> DNA

<213> Homo sapiens

<400> 3367

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120
tgccctcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctggggag
180
agtattttac ggaactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag
240
gagggtgctgg gagccccaca actcaggggc ccccgacgcc cagtaaggcc actgtacacc
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accagg
366

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<210> 3368

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3368

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Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1             5             10             15
Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
          20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
          35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
          50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
          65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
          85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
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```

<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaaggaggaa
120
aagggttttat ataatgccaa taataatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat ctgtattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
ttgcatctg cagttcctca tacaacccgg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
420
gagcattggtg aatttgagaa gaatttgtat ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaaatag tcttttaagt ctctgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattattgg ccaagaaggg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtggtgtac catccacttg gctgaggtga aagaaacatc cattctgtgg catgtgggac
840
ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
900

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agatggaagg cagcagatata agctgtagat ctgttcttag atctcttgaa ttagtgagac
 960
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggctttagcg
 1020
 gttcttgctt catctttggga ttctaaatgg aagctttcaa cagagcattc catcttctgc
 1080
 tgttaaaacc ttttgttttc acctaaaccc ttctgctta gttgtatctc tgtgaaaaac
 1140
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa
 1200
 atcattaaca cttaaatgac ttcattggga atattgagca gagggactgt gcttctatgc
 1260
 actgggcaag gcagattttg cttaggaaac taatttagtc atcagagata ctttcctaaa
 1320
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 1380
 attcatttat atgtcttttg attct
 1405

<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

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Thr	Ile	Glu	Glu	Asp	Lys	Glu	Gln	Lys	Asn	Gln	Glu	Asn	Cys	Gly	Ala
		20						25					30		
Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35				40						45			
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
	50				55					60					
Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
65				70					75					80	
Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
		85						90						95	
Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
		100					105						110		
Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
		115				120					125				
Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
	130					135					140				
Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
145			150						155					160	
Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
		165						170					175		
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
		180						185					190		
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
		195				200						205			
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
	210					215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

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225          230          235          240
Asp Leu Asp Lys Ala Tyr Gln Glu Leu Leu Arg Leu Ile Asn Lys Leu
          245          250          255
Asp Thr Glu Pro Gln Trp Val Pro Ser Thr Trp Leu Arg
          260          265

<210> 3371
<211> 790
<212> DNA
<213> Homo sapiens

<400> 3371
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gacagaccag agactccagt caccctcgcc atctgtggaa tcatattctg gctgatcttt
120
ggtttcaaaa gtcgggtggc ctggggctgt atggtccccc cccctggggg ggttgaggaa
180
gtgctgtctg tctgaggtac tgccgtacct gtagtctctg tccccgcttt tgccctggcc
240
aaagaagcac caagggagca tctggaccac caggctgcac accaaccctt cccagaccg
300
cgattccgac aagagacggg gcacccttca ttgcaaagag atttcccag atcctttctc
360
cttgatctac caaactttcc agatctttcc aaagctgata tcaatgggca gaatccaaat
420
atccagggtc ccatagaggt ggtcgacggt cctgactctg aagcagataa agatcagcat
480
ccggagaata agcccagctg gtcagtccca tccccgact ggcgggcctg gtggcagagg
540
tccctgtctc tggccagggc aaacagcggg gaccaggact acaagtacga cagtacctca
600
gacgacagca acttctctca cccccccagg ggggtgggacc atacagcccc aggccaccgg
660
acttttgaia ccaaagatca gccagaatat gattccacag atggcgaggg tgactggagt
720
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780
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<210> 3372
<211> 198
<212> PRT
<213> Homo sapiens

<400> 3372
Gly Thr Ala Val Arg Val Val Leu Val Pro Ala Phe Ala Leu Ala Lys
1          5          10          15
Glu Ala Pro Arg Glu His Leu Asp His Gln Ala Ala His Gln Pro Phe
20          25          30
Pro Arg Pro Arg Phe Arg Gln Glu Thr Gly His Pro Ser Leu Gln Arg
35          40          45
Asp Phe Pro Arg Ser Phe Leu Leu Asp Leu Pro Asn Phe Pro Asp Leu

```

```

      50              55              60
Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile
65              70              75              80
Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro
      85              90              95
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp
      100             105             110
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp
      115             120             125
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro
      130             135             140
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys
145             150             155             160
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu
      165             170             175
Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr
      180             185             190
Arg Ser Cys Gly Tyr Ala
      195

<210> 3373
<211> 726
<212> DNA
<213> Homo sapiens

<400> 3373
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120
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180
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240
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300
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360
cacgagcttg ggaaggacat gtcggaggcc ggcgcctgtg cgggcagaag ctgtgtcctc
420
cagcccttcc accaccagca tgttctcatt tccagggttc tctgtttaaa aaacaaaagt
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600
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720
atgcat
726

<210> 3374

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<211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3374
 Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro
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 Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn
 20 25 30
 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro
 35 40 45
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile
 50 55 60
 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg
 65 70 75 80
 Gly Arg Gly Leu

<210> 3375
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3375
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 60
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 120
 agccacctgc ctgggctttg ggggccccagc cggcatgggg agccccaggc tccagctggc
 180
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 240
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 360
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 393

<210> 3376
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 3376
 Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys
 1 5 10 15
 Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr
 20 25 30
 Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala
 35 40 45
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys
 50 55 60
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

tcagggtttaa tccatatgcc cactctcttg gaggctgtcc agtagcgtca aaacttttagt
1320
gtttttaatac attcacctgt tactttttgag atgaagttca cctttcttgg atcacatgca
1380
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1560
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1920
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2520
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3960
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4500

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 4680
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 4740
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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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Ala	Ser	Val	Ile	Gln	Phe	Gly	Lys	Ser	Ala	Lys	Arg	Thr	Pro	Glu	Ser
				20					25				30		
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
				35			40					45			
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
				50			55				60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
				65			70			75			80		
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
				85				90					95		
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
				100				105					110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
				115			120					125			
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
				130			135				140				
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
				145			150			155			160		
Ile	Gln	Met	Ala	Glu	Thr	Ser	Pro	Glu	Gly	Thr	Lys	Pro	Glu	Arg	Arg

165										170					175				
Ser	Phe	Arg	Ala	Tyr	Ala	Ala	Val	Leu	Tyr	Ile	Asp	Pro	Arg	Met	Arg				
			180					185					190						
Ile	Phe	Ile	His	Gly	His	Lys	Val	Gln	Thr	Lys	Arg	Leu	Ser	Cys	Cys				
			195				200					205							
Leu	Tyr	Lys	Pro	Arg	Met	Tyr	Lys	Tyr	Thr	Ser	Ser	Arg	Phe	Lys	Thr				
			210				215				220								
Arg	Ala	Glu	Gln	Glu	Val	Arg	Ile	Ala	Val	His	Val	Ala	Arg	Ile	Ala				
			225				230				235								
Glu	Glu	Lys	Ala	Arg	Glu	Ala	Glu	Ser	Lys	Ala	Arg	Thr	Leu	Glu	Val				
			245								250								
Arg	Leu	Gly	Gly	Asp	Leu	Thr	Arg	Asp	Ser	Arg	Val	Met	Leu	Arg	Gln				
			260					265					270						
Val	Gln	Asn	Arg	Ala	Ile	Thr	Leu	Arg	Arg	Glu	Ala	Asp	Val	Lys	Lys				
			275				280					285							
Arg	Ile	Lys	Glu	Ala	Lys	Gln	Arg	Ala	Leu	Lys	Glu	Pro	Lys	Glu	Leu				
			290				295				300								
Asn	Phe	Val	Phe	Gly	Val	Asn	Ile	Glu	His	Arg	Asp	Leu	Asp	Gly	Met				
			305				310				315								
Phe	Ile	Tyr	Asn	Cys	Ser	Arg	Leu	Ile	Lys	Met	Tyr	Glu	Lys	Val	Gly				
			325							330									
Pro	Gln	Leu	Glu	Gly	Gly	Met	Ala	Cys	Gly	Gly	Val	Val	Gly	Val	Val				
			340					345					350						
Asp	Val	Pro	Tyr	Leu	Val	Leu	Glu	Pro	Thr	His	Asn	Lys	Gln	Asp	Phe				
			355				360					365							
Ala	Asp	Ala	Lys	Glu	Tyr	Arg	His	Leu	Leu	Arg	Ala	Met	Gly	Glu	His				
			370				375				380								
Leu	Ala	Gln	Tyr	Trp	Lys	Asp	Ile	Ala	Ile	Ala	Gln	Arg	Gly	Ile	Ile				
			385				390				395								
Lys	Phe	Trp	Asp	Glu	Phe	Gly	Tyr	Leu	Ser	Ala	Asn	Trp	Asn	Gln	Pro				
			405							410									
Pro	Ser	Ser	Glu	Leu	Arg	Tyr	Lys	Arg	Arg	Arg	Ala	Met	Glu	Ile	Pro				
			420					425					430						
Thr	Thr	Ile	Gln	Cys	Asp	Leu	Cys	Leu	Lys	Trp	Arg	Thr	Leu	Pro	Phe				
			435					440				445							
Gln	Leu	Ser	Ser	Val	Glu	Lys	Asp	Tyr	Pro	Asp	Thr	Trp	Val	Cys	Ser				
			450				455				460								
Met	Asn	Pro	Asp	Pro	Glu	Gln	Asp	Arg	Cys	Glu	Ala	Ser	Glu	Gln	Lys				
			465				470				475								
Gln	Lys	Val	Pro	Leu	Gly	Thr	Phe	Arg	Lys	Asp	Met	Lys	Thr	Gln	Glu				
			485							490									
Glu	Lys	Gln	Lys	Gln	Leu	Thr	Glu	Lys	Ile	Arg	Gln</								

595	600	605
Pro Glu Ala Pro Arg Lys	Pro Ala Asn Thr Leu Val Lys Thr Ala Ser	
610	615	620
Arg Pro Ala Pro Leu Val Gln Gln Leu Ser Pro Ser Leu Leu Pro Asn		
625	630	635
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro		
645	650	655
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro		
660	665	670
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Val Glu Glu		
675	680	685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val		
690	695	700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly		
705	710	715
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His		
725	730	735
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala		
740	745	750
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr		
755	760	765
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser		
770	775	780
Glu Asp Val Arg Leu Met Lys Pro Pro Ser Pro Glu His Gln Ser Leu		
785	790	795
Asp Thr Gln Gln Glu Gly Glu Glu Glu Val Gly Pro Val Ala Gln		
805	810	815
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile		
820	825	830
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu		
835	840	845
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser		
850	855	860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu		
865	870	875
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu		
885	890	895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys		
900	905	910
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr		
915	920	925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln		
930	935	940
Lys Val Gln Glu Asp Ile Asp Ile Asn Thr Asp Asp Glu Leu Asp Ala		
945	950	955
Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp		
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<210> 3379

<211> 898

<212> DNA

<213> Homo sapiens

<400> 3379

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 ccccaaccct gggagctccg agtgtcagaa gatgcgttat tgggctcaga gattgcacag
 180
 gtaacaggga atgatgtgga ctacaggacc gtgctgtggt atgtgctaag cccatctggg
 240
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 300
 gaetttgagc agtgtgaccg ctaccagctg cagctgctgg cacatgatgg gcctcatgag
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 420
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 480
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 540
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 660
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 720
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 780
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<210> 3380

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3380

Xaa Ile Trp Ala Glu Thr Arg Leu Val Leu Met Ala Thr Asp Arg Gly
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 20 25 30
 Thr Asn Gly Asn Arg Pro Thr Ile Pro Gln Pro Trp Glu Leu Arg Val
 35 40 45
 Ser Glu Asp Ala Leu Leu Gly Ser Glu Ile Ala Gln Val Thr Gly Asn
 50 55 60
 Asp Val Asp Ser Gly Pro Val Leu Trp Tyr Val Leu Ser Pro Ser Gly
 65 70 75 80
 Pro Gln Asp Pro Phe Ser Val Gly Arg Tyr Gly Gly Arg Val Ser Leu
 85 90 95
 Thr Gly Pro Leu Asp Phe Glu Gln Cys Asp Arg Tyr Gln Leu Gln Leu
 100 105 110
 Leu Ala His Asp Gly Pro His Glu Gly Arg Ala Xaa Leu Thr Val Leu
 115 120 125
 Val Glu Asp Val Asn Asp Asn Ala Pro Ala Phe Ser Gln Ser Leu Tyr

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      130              135              140
Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser
145              150              155              160
Val Ser Ala Thr Asp Arg Asp Ser Gly Ala Asn Gly His Ile Ser Tyr
      165              170              175
His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly
      180              185              190
Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser
      195              200              205
Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val
      210              215              220
Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp
      225              230              235              240
His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu
      245              250              255
Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala
      260              265              270
Asp Gly Ser Arg Ser His Ala Ala Val Asp Tyr Ser Ile Ile Ser Gly
      275              280              285
Asn Trp Gly Arg Val Phe Gln Leu Glu Pro Arg
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<210> 3381

<211> 1379

<212> DNA

<213> Homo sapiens

<400> 3381

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gaagcggcct gtggcagcaa gaaacgggta gtgccaggta ttgtgtacct gggccatata
180
cgcgcgcgct tccggccctc gcacgtccgc aaccttctca cgccttatgg cgaggtcgga
240
cgcgtcttct ttcaggctga ggaccgggtc gtgagacgca agaagaaggc agcagcagct
300
gccggaggga aaaagcggtc ctacaccaag gactacaccc agggatgggt ggagttccgt
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gacaagcgca tagccaagcg cgtggcgccc agtctacaca acacgcctat ggggtcccg
420
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480
tcccacctca gcgagcacct cgccttttag cgcagggtgc gcaggcagcg cttgagagcg
540
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600
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660
cgctctactg agcaggaaact gagggcccggt aaagcagcac ggccaggggg acgtgaacgg
720
gctcgctcgg caactgcccc ggacaaggcc cgctccaaca aagggtcctt ggccaggatc
780

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 gggcctgggt ggcccccttc atttctctgc cctgtctctg ttctgtctca cctcatacta
 900
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 1260
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 1379

<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

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 20 25 30
 Glu Glu Glu Gln Glu Glu Ser Glu Glu Ala Ala Cys Gly Ser Lys Lys
 35 40 45
 Arg Val Val Pro Gly Ile Val Tyr Leu Gly His Ile Pro Pro Arg Phe
 50 55 60
 Arg Pro Leu His Val Arg Asn Leu Leu Ser Ala Tyr Gly Glu Val Gly
 65 70 75 80
 Arg Val Phe Phe Gln Ala Glu Asp Arg Phe Val Arg Arg Lys Lys Lys
 85 90 95
 Ala Ala Ala Ala Ala Gly Gly Lys Lys Arg Ser Tyr Thr Lys Asp Tyr
 100 105 110
 Thr Glu Gly Trp Val Glu Phe Arg Asp Lys Arg Ile Ala Lys Arg Val
 115 120 125
 Ala Ala Ser Leu His Asn Thr Pro Met Gly Ala Arg Arg Arg Ser Pro
 130 135 140
 Phe Arg Tyr Asp Leu Trp Asn Leu Lys Tyr Leu His Arg Phe Thr Trp
 145 150 155 160
 Ser His Leu Ser Glu His Leu Ala Phe Glu Arg Gln Val Arg Arg Gln
 165 170 175
 Arg Leu Arg Ala Glu Val Ala Gln Ala Lys Arg Glu Thr Asp Phe Tyr
 180 185 190
 Leu Gln Ser Val Glu Arg Gly Gln Arg Phe Leu Ala Ala Asp Gly Asp
 195 200 205
 Pro Ala Arg Pro Asp Gly Ser Trp Thr Phe Ala Gln Arg Pro Thr Glu


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      210              215              220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg
225              230              235              240
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu
      245              250              255
Leu Ala Arg Ile Phe Gly Ala Pro Pro Ser Glu Ser Met Glu Gly
      260              265              270
Pro Ser Leu Val Arg Asp Ser
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<210> 3383
<211> 309
<212> DNA
<213> Homo sapiens

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<400> 3383
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120
aaatgctcac ttcttaacct cttttgtcct ggagcataga attactgcaa atgctcaccc
180
ctgggagctg tcttgccccc gatctccacc acaaacactc cagcatgaaa gagcgagact
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caatctcaaa aaaaaaaaaagt ttggggcacc tgaacaggaa ctggtttcca tcatcaactc
300
agaaagccc
309

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<210> 3384
<211> 94
<212> PRT
<213> Homo sapiens

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<400> 3384
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Thr Asn Phe Val Ala Gly Val Ser Ile Val Val Ile Cys Val Ile Gly
      20      25      30
Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala
      35      40      45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
      50      55      60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Phe Arg
      65      70      75      80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
      85      90

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<210> 3385
<211> 720
<212> DNA
<213> Homo sapiens

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<400> 3385

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 120
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 180
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 240
 cctcttgcca ggttctttgt gaacttcccc tcggccaagc agtacttcag ccagttcaag
 300
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 360
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 420
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 480
 aagatcctct ctgggggtcat tctggagggtg gtgcgcgagg aatttgccag tgacttccca
 540
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 600
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<210> 3386

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3386

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 20 25 30
 Gln Pro Pro Ala Ser Ala Thr Thr Pro Val Pro Leu Ala Arg Phe Phe
 35 40 45
 Val Asn Phe Pro Ser Ala Lys Gln Tyr Phe Ser Gln Phe Lys His Met
 50 55 60
 Glu Asp Pro Leu Glu Met Glu Arg Ser Pro Gln Leu Arg Lys His Ala
 65 70 75 80
 Cys Arg Val Met Gly Ala Leu Asn Thr Val Val Glu Asn Leu His Asp
 85 90 95
 Pro Asp Lys Val Ser Ser Val Leu Ala Leu Val Gly Lys Ala His Ala
 100 105 110
 Leu Lys His Lys Val Glu Pro Val Tyr Phe Lys Ile Leu Ser Gly Val
 115 120 125
 Ile Leu Glu Val Val Ala Glu Glu Phe Ala Ser Asp Phe Pro Pro Glu
 130 135 140
 Thr Gln Arg Ala Trp Ala Lys Leu Arg Gly Leu Ile Tyr Ser His Val
 145 150 155 160
 Thr Ala Ala Tyr Lys Glu Val Gly Trp Val Gln Gln Val Pro Asn Ala
 165 170 175
 Thr Thr Pro Pro Ala Thr Leu Pro Ser Ser Gly Pro

180

185

<210> 3387

<211> 3299

<212> DNA

<213> Homo sapiens

<400> 3387

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120
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180
caacggcggc gggagcatga acgcccccc agccttcgag tcgtttctgc tcttcgaggg
240
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300
aagggtaccca atgcctgttt attcaccatc aacaaagaag accacacact gggaaacatc
360
attaaatcac aactcctaaa agaccgcgaa gtgctatttg ctggtetaca agtccccac
420
ccctgggagc acaagatcat catccgagtg cagaccacgc cggactacag cccccaggaa
480
gcctttacca acgcatcac cgacctcacc agtgagctgt cctgctgga ggagcgttt
540
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660
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720
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1380

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3000

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<210> 3388

<211> 153

<212> FRT

<213> Homo sapiens

<400> 3388

Ser	Gly	Arg	Gly	Leu	Leu	Gly	Leu	Trp	Trp	Arg	Arg	Arg	Arg	Thr
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Leu	Gly	Val	Trp	Thr	Gln	Arg	Arg	Glu	His	Glu	Arg	Pro	Ser	Ser
		20					25				30			
Leu	Arg	Val	Val	Leu	Ala	Leu	Arg	Gly	Arg	Glu	Glu	Val	Ser	Asp
		35					40				45			Ala
Gly	Cys	Gly	Gly	Pro	Arg	Ile	Thr	Ile	Asn	Lys	Asp	Thr	Lys	Val
	50				55				60					Pro
Asn	Ala	Cys	Leu	Phe	Thr	Ile	Asn	Lys	Glu	Asp	His	Thr	Leu	Gly
	65			70					75			80		Asn
Ile	Ile	Lys	Ser	Gln	Leu	Leu	Lys	Asp	Pro	Gln	Val	Leu	Phe	Ala
		85						90				95		Gly
Tyr	Lys	Val	Pro	His	Pro	Leu	Glu	His	Lys	Ile	Ile	Ile	Arg	Val
		100					105					110		Gln
Thr	Thr	Pro	Asp	Tyr	Ser	Pro	Gln	Glu	Ala	Phe	Thr	Asn	Ala	Ile
		115					120					125		Thr
Asp	Leu	Ile	Ser	Glu	Leu	Ser	Leu	Leu	Glu	Glu	Arg	Phe	Arg	Val
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Ile	Lys	Asp	Lys	Gln	Glu	Gly	Ile	Glu						
145					150									

<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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 180
 gacgggggaac cttctgacca gcctcatggg ctccctcagag caggaggatg gggaggagag
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cggtcgac
308

<210> 3390
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3390
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Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro
35 40 45
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro
50 55 60
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu
65 70 75 80
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His
85 90 95
Val Glu Thr Pro Arg Ser
100

<210> 3391
<211> 1295
<212> DNA
<213> Homo sapiens

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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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			20					25					30		
Phe	Gly	Val	Ile	Ala	Asp	Val	Gln	Phe	Ala	Asp	Leu	Glu	Asp	Gly	Phe
			35				40					45			
Asn	Phe	Gln	Gly	Thr	Arg	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His
			50			55				60					
Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
			65		70				75				80		
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85					90					95		
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
			100					105					110		
Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
			115				120					125			
Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
			130			135				140					
Glu	Asp	Gln	Ile	Val	His	His	Pro	Glu	Thr	Met	Pro	Ser	Glu	Asp	Tyr
			145		150				155				160		
Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165					170					175		
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
			180					185				190			
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
			195				200				205				
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

210	215	220
Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr		
225	230	235
Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro		
	245	250
Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg		
	260	265
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe		
	275	280
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val		
	290	295
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln		
	305	310
Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly		
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Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala		
	340	345
Phe His Cys		350
355		

<210> 3393
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 3393
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 agtcggggcg ggtcaaaact cgagtacttg aaacgggagc actcgctgtc gaagccctac
 180
 cagggtgttg gcacaggcag ttcttctact tggaatctga tgggcaatng catggtgatg
 240
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 360
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<210> 3394
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 3394
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 Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val

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Gly Val Trp	Ala Gly Ala Thr	Ala Ser Arg	Gly Gly Ser	Asn Phe Glu	
	35	40	45		
Tyr Leu Lys	Arg Glu His Ser	Leu Ser Lys	Pro Tyr Gln	Gly Val Gly	
	50	55	60		
Thr Gly Ser	Ser Ser Leu Trp	Asn Leu Met	Gly Asn Xaa	Met Val Met	
65	70	75	80		
Thr Gln Tyr	Ile Arg Leu Thr	Pro Asp Met	Gln Ser Lys	Gln Gly Ala	
	85	90	95		
Leu Trp Asn	Arg Val Pro Cys	Phe Leu Arg	Asp Trp Glu	Leu Gln Val	
	100	105	110		
His Phe Lys	Ile His Gly Gln	Gly Lys Asn	Leu His Gly	Asp Gly	
	115	120	125		
Leu Ala Ile	Trp Tyr Thr Lys	Asp Arg Met	Gln Pro Gly	Pro Val Phe	
	130	135	140		
Gly Asn Met	Asp Lys Phe Val	Gly Leu Gly	Val Phe Val	Asp Thr Tyr	
145	150	155	160		
Pro Asn Glu	Glu Lys Gln Pro	Phe Thr Arg			
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<210> 3395

<211> 807

<212> DNA

<213> Homo sapiens

<400> 3395

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420
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<210> 3396
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3396
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 35 40 45
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser
 50 55 60
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser
 65 70 75 80
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys
 85 90 95
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn
 100 105 110
 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser
 115 120 125
 Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg
 130 135 140
 Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr
 145 150 155 160
 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg
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 Val Pro Ser Tyr Ser Gln Gln Gly Ala Arg Pro Lys Glu Asn Ser Met Ser
 180 185 190
 Thr Leu Gln Leu Asn Thr Ser Ser Thr Asn His Gln Leu
 195 200 205

<210> 3397
 <211> 492
 <212> DNA
 <213> Homo sapiens

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<210> 3398

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3398

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Cys	Ser	Cys	Ser	Gln	Pro	Ala	Gly	Pro	Leu	Pro	Ala	Pro	Gly	Arg	Gly
			20					25					30		
Thr	Leu	Cys	Ser	Val	Pro	Ser	Leu	Glu	Gln	Gln	Gln	Pro	Gly	Xaa	Ala
			35				40						45		
Ala	Ser	Ala	Ile	Pro	Ser	Trp	Leu	Leu	Asn	Asp	Pro	Gly	Val	Glu	Xaa
			50			55					60				
Glu	Val	Met	Gly	Asp	Ala	Val	Leu	Glu	Ala	Ser	His	Asn	Val	Gln	Gly
65					70				75					80	
Cys	Gly	Cys	Ser	Trp	Val	Ser	His	Ser	Gly	Arg	Gly	Val	Gly	Pro	Glu
			85					90						95	
Ala	Glu	Gly	Ala	Gly	Ser	Pro	Gln	Ser	Leu	Gly	His	Gly	Ser	Gly	Gly
			100					105					110		
Trp	Ala	Ala	Arg	Arg	Cys	His	Cys	Leu	Ser	Val	Ala	Gly	Val	Ala	Ala
			115				120					125			
Ala	Ser	Gly	Cys	Pro	Arg	Thr	Glu	Glu	Ala	Ala	Trp	Gly	Glu	Ile	Leu
			130			135					140				
Arg	Glu	Gly	Leu	Ser	Ser	Pro	Cys	Ser	Cys	Ser	Pro	Gly	Pro	Pro	Gly
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Lys	Leu	Gly													

<210> 3399

<211> 5784

<212> DNA

<213> Homo sapiens

<400> 3399

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 420

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<210> 3400

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 3400

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		20					25					30			
Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
		35				40					45				
Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
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Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
65					70				75					80	
Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
			85					90						95	
Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
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Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
		115				120					125				
Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
		130			135						140				
Asn	Ser	Ser	Gln	Lys	Arg	Ser	Val	Ile	Val	Cys	Gln	Ser	Arg	Asn	Glu
145				150						155				160	
Ala	Gln	Gly	Lys	Thr	Val	Ser	Gln	Asn	Gln	Pro	Asp	Val	Ser	His	Thr
			165					170						175	
Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
			180				185						190		
His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
		195				200						205			
Lys	Ser	Trp	Pro	Lys	Asp	Ser	Ser	Val	Val	Tyr	Ala	Lys	Ser	Leu	Glu
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His	Ser	Gly	Ser	Leu	Asp	Asp	Pro	Asn	Arg	Ile	Ser	Leu	Val	Lys	Arg

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Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
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Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
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Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305                310                315
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
                325                330                335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
                340                345                350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
                355                360                365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
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Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385                390                395
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
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Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
                420                425                430
Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
                435                440                445
Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ala Ser Ser Ser Ser
450                455                460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465                470                475
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
                485                490                495
Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
                500                505                510
Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
                515                520                525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
                530                535                540
Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545                550                555
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
                565                570                575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
                580                585                590
Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
                595                600                605
Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
                610                615                620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625                630                635
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
                645                650                655
Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

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Tyr Ile Cys 660 Thr Tyr Cys Gly Lys Ala Tyr Arg Phe Leu Ser Gln Phe
 675 680 685
 Lys Gln His Ile Lys Met His Pro Gly Glu Lys Pro Leu Gly Val Asn
 690 695 700
 Lys Val Ala Lys Pro Lys Glu His Ala Pro Leu Ala Ser Pro Val Glu
 705 710 715 720
 Asn Lys Glu Val Tyr Gln Cys Arg Leu Cys Asn Ala Lys Leu Ser Ser
 725 730 735
 Leu Leu Glu Gln Gly Ser His Glu Arg Leu-Cys Arg Asn Ala Ala Val
 740 745 750
 Cys Pro Tyr Cys Ser Leu Arg Phe Phe Ser Pro Glu Leu Lys Gln Glu
 755 760 765
 His Glu Ser Lys Cys Glu Tyr Lys Lys Leu Thr Cys Leu Glu Cys Met
 770 775 780
 Arg Thr Phe Lys Ser Ser Phe Ser Ile Trp Arg His Gln Val Glu Val
 785 790 795 800
 His Asn Gln Asn Asn Met Ala Pro Thr Glu Asn Phe Ser Leu Pro Val
 805 810 815
 Leu Asp His Asn Gly Asp Val Thr Gly Ser Ser Arg Pro Gln Ser Gln
 820 825 830
 Pro Glu Pro Asn Lys Val Asn His Ile Val Thr Thr Lys Asp Asp Asn
 835 840 845
 Val Phe Ser Asp Ser Ser Glu Gln Val Asn Phe Asp Ser Glu Asp Ser
 850 855 860
 Ser Cys Leu Pro Glu Asp Leu Ser Leu Ser Lys Gln Leu Lys Ile Gln
 865 870 875 880
 Val Lys Glu Glu Pro Val Glu Glu Ala Glu Glu Glu Ala Pro Glu Ala
 885 890 895
 Ser Thr Ala Pro Lys Glu Ala Gly Pro Ser Lys Glu Ala Ser Leu Trp
 900 905 910
 Pro Cys Glu Lys Cys Gly Lys Met Phe Thr Val His Lys Gln Leu Glu
 915 920 925
 Arg His Gln Glu Leu Leu Cys Ser Val Lys Pro Phe Ile Cys His Val
 930 935 940
 Cys Asn Lys Ala Phe Arg Thr Asn Phe Arg Leu Trp Ser His Phe Gln
 945 950 955 960
 Ser His Met Ser Gln Ala Ser Glu Glu Ser Ala His Lys Glu Ser Glu
 965 970 975
 Val Cys Pro Val Pro Thr Asn Ser Pro Ser Pro Pro Leu Pro Pro
 980 985 990
 Pro Pro Pro Leu Pro Lys Ile Gln Pro Leu Glu Pro Asp Ser Pro Thr
 995 1000 1005
 Gly Leu Ser Glu Asn Pro Thr Pro Ala Thr Glu Lys Leu Phe Val Pro
 1010 1015 1020
 Gln Glu Ser Asp Thr Leu Phe Tyr His Ala Pro Pro Leu Ser Ala Ile
 1025 1030 1035 1040
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<210> 3401

<211> 579

<212> DNA

<213> Homo sapiens

<400> 3401

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 120
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 180
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 240
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 300
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 360
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 420
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 480
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<210> 3402

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3402

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 20 25 30
 Val Tyr Thr Arg Leu Gly Glu Met Asn Asn Ala Val Arg Asn Leu Gln
 35 40 45
 Glu Leu Leu Glu Leu Asp Ser Ser Ser Leu Cys Val Leu Val Ser
 50 55 60
 Thr Val Gly Lys Leu Cys Arg Leu Ile Asn Glu Asp Val Asn Glu Gln
 65 70 75 80
 Val Met Gln Val Leu Gly Pro Glu Asp Leu Gln Ser Ile Ile Tyr Lys
 85 90 95
 Leu Glu Glu His Glu Glu Phe Phe Pro Ala Phe Gln Ala Phe Thr Asn
 100 105 110
 Asp Leu Leu Glu Ile Leu Glu Ile Asp Asp Ser Gly Cys His Cys Thr
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 130 135 140
 Ile Phe Thr Val
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<210> 3403

<211> 1696

<212> DNA

<213> Homo sapiens

<400> 3403

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120
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180
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240
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300
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420
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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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Gln	Ala	Gln	Leu	Glu	Glu	Gly	Lys	Val	Lys	Glu	Arg	Arg	Pro	Phe	Leu
			20					25					30		
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
			35				40					45			
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
			50			55						60			
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
						70			75				80		
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
						85			90				95		
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
			100					105					110		
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
			115				120					125			
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
			130			135					140				
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
			145			150				155				160	
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
			165					170					175		
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala
			180					185					190		
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
			195				200				205				
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
			210			215					220				
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe
			225			230				235				240	
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu
			245					250						255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
			260					265					270		
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<210> 3405

<211> 402

<212> DNA

<213> Homo sapiens

<400> 3405

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120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
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300
gcccagcct catctccagg cttggctaag cccagatgc cccagggtcc ctgcagccct
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<210> 3406

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3406

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Ile Glu Ser Ala Arg Gln Ala Gly Asp Ser Ala Lys Met Arg Arg Tyr
20          25          30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35          40          45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50          55          60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65          70          75          80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85          90          95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100         105         110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115         120         125
Pro Ala Arg Leu Gln Ala
130

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<210> 3407

<211> 535

<212> DNA

<213> Homo sapiens

<400> 3407

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tttcccgac accatgcctt ctgcggcgtg aggcaggtgg cggcaccgac aggcccgggg
120

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 240
 ggcccggggg ggacctttcc cggaacacct gcctcctcg cgaggcaggt ggcagaactg
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 360
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 420
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<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

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			20					25					30		
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
		35					40					45			
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
		50					55				60				
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65				70					75					80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
				85				90						95	
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
			100				105						110		
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
			115				120					125			
Trp	Leu	Ile													
		130													

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 120
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 180
 cctcgcccca gcgcggcccg caccgccatg gaggtgctgg agagcgggga gcagggcgtg
 240

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<210> 3410

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

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			20					25				30			
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
			35				40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
			50			55					60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
			65			70				75				80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
			85					90						95	
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105						110	
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
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<210> 3411

<211> 958

<212> DNA

<213> Homo sapiens

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 420
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 780
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 958

<210> 3412
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3412
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 Thr Val Gly Lys Leu Lys Thr His Leu Ser Asn Val Tyr Pro Ser Lys
 35 40 45
 Pro Leu Thr Lys Asp Gln Arg Leu Val Tyr Ser Gly Arg Leu Leu Pro
 50 55 60
 Asp His Leu Gln Leu Lys Asp Ile Leu Arg Lys Gln Asp Glu Tyr His
 65 70 75 80
 Met Val His Leu Val Cys Thr Ser Arg Thr Pro Pro Ser Ser Pro Lys
 85 90 95
 Ser Ser Thr Asn Arg Glu Ser His Glu Ala Leu Ala Ser Ser Ser Asn

	100					105				110					
Ser	Ser	Ser	Asp	His	Ser	Gly	Ser	Thr	Pro	Ser	Ser	Gly	Gln	Glu	
	115					120				125					
Thr	Leu	Ser	Leu	Ala	Val	Gly	Ser	Ser	Ser	Glu	Gly	Leu	Arg	Gln	Arg
	130					135				140					
Thr	Leu	Pro	Gln	Ala	Gln	Thr	Asp	Gln	Ala	Gln	Ser	His	Gln	Phe	Pro
	145					150				155					160
Tyr	Val	Met	Gln	Gly	Asn	Val	Asp	Asn	Gln	Phe	Pro	Gly	Gln	Ala	Ala
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<210> 3413

<211> 3344

<212> DNA

<213> Homo sapiens

<400> 3413

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240
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360
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420
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480
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600
cagcagttga acccaggctt tcagctttct tttgcatcat ctggcccacag tgttgtgctt
660
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720
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960
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1080

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<210> 3414

<211> 723

<212> PRT

<213> Homo sapiens

<400> 3414

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 20 25 30
 Tyr Gly Cys Val Gln Gln Pro Lys Thr Gln Glu Ser Lys Leu Lys Ile
 35 40 45
 Gly Gly Val Ser Ser Val Asn Glu Arg Pro Ile Ala Gln Gln Leu Asn
 50 55 60
 Pro Gly Phe Gln Leu Ser Phe Ala Ser Ser Gly Pro Ser Val Leu Leu
 65 70 75 80
 Pro Ser Val Pro Ala Val Ala Ile Lys Val Phe Cys Ser Gly Cys Lys
 85 90 95
 Lys Met Leu Tyr Lys Gly Gln Thr Ala Tyr His Lys Thr Gly Ser Thr
 100 105 110
 Gln Leu Phe Cys Ser Thr Arg Cys Ile Thr Arg His Ser Ser Pro Ala
 115 120 125
 Cys Leu Pro Pro Pro Lys Lys Thr Cys Thr Asn Cys Ser Lys Asp
 130 135 140
 Ile Leu Asn Pro Lys Asp Val Ile Thr Thr Arg Phe Glu Asn Ser Tyr
 145 150 155 160
 Pro Ser Lys Asp Phe Cys Ser Gln Ser Cys Leu Ser Ser Tyr Glu Leu
 165 170 175
 Lys Lys Lys Pro Val Val Thr Ile Tyr Thr Lys Ser Ile Ser Thr Lys
 180 185 190
 Cys Ser Met Cys Gln Lys Asn Ala Asp Thr Arg Phe Glu Val Lys Tyr

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625		630		635		640
Leu Ser Thr Gly Asn Thr Asn Ser Val Leu Lys Gly Ala Val Thr Lys						
	645		650		655	
Glu Ala Ala Lys Ile Ile Gln Asp Glu Ser Thr Gln Glu Asp Ala Met						
	660		665		670	
Lys Phe Pro Ser Ser Gln Ser Ser Gln Pro Ser Arg Leu Leu Lys Asn						
	675		680		685	
Lys Gly Ile Ser Cys Lys Pro Val Thr Gln Thr Lys Ala Thr Ser Cys						
	690		695		700	
Lys Pro His Thr Gln His Lys Glu Cys Gln Thr Glu Cys Pro Val Arg						
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Ala Val Cys						

<210> 3415

<211> 3501

<212> DNA

<213> Homo sapiens

<400> 3415

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1020

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<210> 3416

<211> 259

<212> PRT

<213> Homo sapiens

<400> 3416

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			20						25				30		
Asn	Pro	Ala	Phe	Lys	Pro	Val	Leu	Ala	Ile	Ile	Gln	Ala	Gly	Asp	Asp
			35					40				45			
Asn	Leu	Met	Gln	Glu	Ile	Asn	Gln	Asn	Leu	Ala	Glu	Glu	Ala	Gly	Leu
			50			55					60				
Asn	Ile	Thr	His	Ile	Cys	Leu	Pro	Pro	Asp	Ser	Ser	Glu	Ala	Glu	Ile
65					70				75				80		
Ile	Asp	Glu	Ile	Leu	Lys	Ile	Asn	Glu	Asp	Thr	Arg	Val	His	Gly	Leu
			85						90				95		
Ala	Leu	Gln	Ile	Ser	Glu	Asn	Leu	Phe	Ser	Asn	Lys	Val	Leu	Asn	Ala
			100					105				110			
Leu	Lys	Pro	Glu	Lys	Asp	Val	Asp	Gly	Val	Thr	Asp	Ile	Asn	Leu	Gly
			115				120					125			
Lys	Leu	Val	Arg	Gly	Asp	Ala	His	Glu	Cys	Phe	Val	Ser	Pro	Val	Ala

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Gly Lys Lys Ile Leu Val Val Gly Ala His Gly Ser Leu Glu Ala Ala
      165              170              175
Leu Gln Cys Leu Phe Gln Arg Lys Gly Ser Met Thr Met Ser Ile Gln
      180              185              190
Trp Lys Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val
      195              200              205
Val Leu Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln
      210              215              220
Pro Gly Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys
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<210> 3417
<211> 405
<212> DNA
<213> Homo sapiens

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405

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<210> 3418
<211> 94
<212> PRT
<213> Homo sapiens

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Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp
      35              40              45
Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser
      50              55              60
Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

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<210> 3422

<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

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Phe Ser Ser Lys Thr Val Thr Val Leu Leu Leu Ala Gln Thr Thr Cys					
	35		40		45
Leu Leu Leu Phe Ile Ile Ser Arg Pro Gly Pro Ser Pro Ala Gly					
	50		55		60
Gly Glu Asp Arg Val His Val Leu Val Leu Ser Ser Trp Arg Ser Gly					
65		70		75	80
Ser Ser Phe Leu Gly Gln Leu Phe Ser Gln His Pro Asp Val Phe Tyr					
	85		90		95
Leu Met Glu Pro Ala Trp His Val Trp Thr Thr Leu Ser Gln Gly Ser					
	100		105		110
Ala Ala Thr Leu His Met Ala Val Arg Asp Leu Met Arg Ser Ile Phe					
	115		120		125
Leu Cys Asp Met Asp Val Phe Asp Ala Tyr Met Glu Pro Gly Pro Arg					
	130		135		140
Arg Gln Ser Ser Leu Phe Gln Trp Glu Asn Ser Arg Ala Leu Cys Ser					
145		150		155	160
Ala Pro Ala Cys Asp Ile Ile Pro Gln Asp Glu Ile Ile Pro Arg Ala					
	165		170		175
His Cys Arg Leu Leu Cys Ser Gln Gln Pro Phe Glu Val Val Glu Lys					
	180		185		190
Ala Cys Arg Ser Tyr Ser His Val Val Leu Lys Glu Val Arg Phe Phe					
	195		200		205
Asn Leu Gln Ser Leu Tyr Pro Leu Leu Lys Asp Pro Ser Leu Asn Leu					
	210		215		220
His Ile Val His Leu Val Arg Asp Pro Arg Ala Val Leu Arg Ser Arg					
225		230		235	240
Glu Ala Ala Gly Pro Ile Leu Ala Arg Asp Asn Gly Ile Val Leu Gly					
	245		250		255
Thr Asn Gly Lys Trp Val Glu Ala Asp Pro His Leu Arg Leu Ile Arg					
	260		265		270
Glu Val Cys Arg Ser His Val Arg Ile Ala Glu Ala Ala Thr Leu Lys					
	275		280		285
Pro Pro Pro Phe Leu Arg Gly Arg Tyr Arg Leu Val Arg Phe Glu Asp					
	290		295		300
Leu Ala Arg Glu Pro Leu Ala Glu Ile Arg Ala Leu Tyr Ala Phe Thr					
305		310		315	320
Gly Leu Thr Leu Thr Pro Gln Leu Glu Ala Trp Ile His Asn Ile Thr					
	325		330		335
His Gly Ser Gly Ile Gly Lys Pro Ile Glu Ala Phe His Thr Ser Ser					
	340		345		350
Arg Asn Ala Arg Asn Val Ser Gln Ala Trp Arg His Ala Leu Pro Phe					
	355		360		365
Thr Lys Ile Leu Arg Val Gln Glu Val Cys Ala Gly Ala Leu Gln Leu					
	370		375		380
Leu Gly Tyr Arg Pro Val Tyr Ser Ala Asp Gln Gln Arg Asp Leu Thr					
385		390		395	400
Leu Asp Leu Val Leu Pro Arg Gly Pro Asp His Phe Ser Trp Ala Ser					
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Pro Asp					

<210> 3423

<211> 1851

<212> DNA

<213> Homo sapiens

<400> 3423

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 1851

<210> 3424
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 3424
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 Ala Ser Tyr Gly Val Arg Gln Asp Gly Asp Pro Ala Phe Leu Tyr Leu
 35 40 45
 Leu Ser Ala Pro Arg Glu Ala Pro Ala Thr Gly Pro Ser Pro Gln His
 50 55 60
 Pro Gln Lys Met Asp Gly Glu Leu Gly Arg Leu Phe Pro Pro Ser Leu
 65 70 75 80
 Gly Leu Pro Pro Gly Pro Gln Pro Ala Ala Ser Ser Leu Pro Ser Pro
 85 90 95
 Leu Gln Pro Ser Trp Ser Cys Pro Ser Cys Thr Phe Ile Asn Ala Pro
 100 105 110
 Asp Arg Pro Gly Cys Glu Met Cys Ser Thr Gln Arg Pro Cys Thr Trp
 115 120 125
 Asp Pro Leu Ala Ala Ala Ser Thr
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<210> 3425
 <211> 1416
 <212> DNA
 <213> Homo sapiens

<400> 3425
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 180
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<210> 3426

<211> 410

<212> PRT

<213> Homo sapiens

<400> 3426

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 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Val Arg Pro Arg Gly
 35 40 45
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser
 50 55 60
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

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65          70          75          80
Asp Gly Thr Cys Asp Glu Cys Glu Pro Asp Glu Ala Pro Gly Ala Glu
      85          90          95
Glu Val Cys Arg Glu Cys Gly Phe Cys Tyr Cys Arg Arg His Ala Glu
      100          105          110
Ala His Arg Gln Lys Phe Leu Ser His His Leu Ala Glu Tyr Val His
      115          120          125
Gly Ser Gln Ala Trp Thr Pro Pro Ala Asp Gly Glu Gly Ala Gly Lys
      130          135          140
Glu Glu Ala Glu Val Lys Val Glu Gln Glu Arg Glu Ile Glu Ser Glu
      145          150          155          160
Ala Gly Glu Glu Ser Glu Ser Glu Glu Glu Ser Glu Ser Glu Glu Glu
      165          170          175          180
Ser Glu Thr Glu Glu Glu Ser Glu Asp Glu Ser Asp Glu Glu Ser Glu
      185          190          195
Glu Asp Ser Glu Glu Glu Met Glu Asp Glu Gln Glu Ser Glu Ala Glu
      200          205          210
Glu Asp Asn Gln Glu Glu Gly Glu Ser Glu Ala Glu Gly Glu Thr Glu
      215          220          225
Ala Glu Ser Glu Phe Asp Pro Glu Ile Glu Met Glu Ala Glu Arg Val
      230          235          240
Ala Lys Arg Lys Cys Pro Asp His Gly Leu Asp Leu Ser Thr Tyr Cys
      245          250          255
Gln Glu Asp Arg Gln Leu Ile Cys Val Leu Cys Pro Val Ile Gly Ala
      260          265          270
His Gln Gly His Gln Leu Ser Thr Leu Asp Glu Ala Phe Glu Glu Leu
      275          280          285
Arg Ser Lys Asp Ser Gly Gly Leu Lys Ala Ala Met Ile Glu Leu Val
      290          295          300
Glu Arg Leu Lys Phe Lys Ser Ser Asp Pro Lys Val Thr Arg Asp Gln
      305          310          315          320
Met Lys Met Phe Ile Gln Gln Glu Phe Lys Lys Val Gln Lys Val Ile
      325          330          335
Ala Asp Glu Glu Gln Lys Ala Leu His Leu Val Asp Ile Gln Glu Ala
      340          345          350
Met Ala Thr Ala His Val Thr Glu Ile Leu Ala Asp Ile Gln Ser His
      355          360          365
Met Asp Arg Leu Met Thr Gln Met Ala Gln Ala Lys Glu Gln Leu Asp
      370          375          380
Thr Ser Asn Glu Ser Ala Glu Pro Lys Ala Glu Gly Asp Glu Glu Gly
      385          390          395          400
Pro Ser Gly Ala Ser Glu Glu Glu Asp Thr
      405          410

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<210> 3427

<211> 580

<212> DNA

<213> Homo sapiens

<400> 3427

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120

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 180
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<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
	20						25				30				
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
	35					40					45				
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
	50				55					60					
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65				70					75				80		
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
		85						90				95			
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
		100						105				110			
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Val	Tyr	Asn	Phe	Glu	
		115				120					125				
Glu	Arg	Gly	Ser												
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<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 120
 gtcagcttcc ttttcatact ttcccgcgct tctctccacg agcaggtgca ccaggagcct
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 420
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 634

<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

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Arg	Arg	Ser	Leu	His	Glu	Gln	Val	His	Gln	Gly	Pro	Val	Pro	Leu	Ser
			20					25					30		
Tyr	Thr	Val	Thr	Thr	Val	Thr	Thr	Gln	Gly	Phe	Pro	Leu	Pro	Thr	Gly
			35				40					45			
Gln	His	Ile	Pro	Gly	Cys	Ser	Ala	Gln	Gln	Leu	Pro	Ala	Cys	Ser	Val
			50			55					60				
Met	Phe	Ser	Gly	Gln	His	Tyr	Pro	Leu	Cys	Cys	Leu	Pro	Pro	Pro	Leu
65				70					75					80	
Ile	Gln	Ala	Cys	Thr	Met	Gln	Gln	Leu	Pro	Val	Pro	Tyr	Gln	Ala	Tyr
			85					90					95		
Pro	His	Leu	Ile	Ser	Ser	Asp	His	Tyr	Ile	Leu	His	Pro	Pro	Pro	Pro
			100				105					110			
Gly	Thr	His	Pro	Ala	Ala	Pro	Gly	Ser	Val						
			115				120								

<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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 180
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 240

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<210> 3432

<211> 296

<212> PRT

<213> Homo sapiens

<400> 3432

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 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly His Phe Leu
 35 40 45
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50		55		60
Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly				
65	70	75	80	
Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu				
	85	90	95	
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His				
	100	105	110	
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu				
	115	120	125	
Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu				
	130	135	140	
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr				
	145	150	155	160
Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly				
	165	170	175	
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly				
	180	185	190	
Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe				
	195	200	205	
Gly Arg Arg Gly Ile Leu Leu Leu Ser Met Thr Leu Thr Gly Ile Ala				
	210	215	220	
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro				
	225	230	235	240
Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala				
	245	250	255	
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala				
	260	265	270	
Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val				
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Arg Gly Arg Gly Leu Gly Leu Ile				
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<210> 3433

<211> 1257

<212> DNA

<213> Homo sapiens

<400> 3433

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 720
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 780
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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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 20 25 30
 Gly Arg Gln Arg Pro Gln Arg Pro Ser His Ser Arg Ser His Thr Arg
 35 40 45
 Ser Asn Leu Lys Arg Asp Val Ala His Leu Tyr Arg Gly Val Gly Ser
 50 55 60
 Arg Tyr Ile Met Gly Ser Gly Glu Ser Phe Met Gln Leu Gln Gln Arg
 65 70 75 80
 Leu Leu Arg Glu Lys Glu Ala Lys Ile Arg Lys Ala Leu Asp Arg Leu
 85 90 95
 Arg Lys Lys Arg His Leu Leu Arg Arg Gln Arg Thr Arg Arg Glu Phe
 100 105 110
 Pro Val Ile Ser Val Val Gly Tyr Thr Asn Cys Gly Glu His Ala Pro
 115 120 125
 Arg Gly Gly Ala Phe Arg Gly Leu Arg Val Thr Gly Glu Asp Ser Pro
 130 135 140
 Gly Gly Gly Gln Gly Val Pro Val Val Ser Val Val Pro Tyr Asp Ser
 145 150 155 160
 Cys Gly Glu His Val Pro Arg Arg Gly Gly Ser His Gly Arg Arg Val

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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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		20						25					30		
Glu	Phe	Asn	Val	Ser	Cys	Leu	Thr	Asp	Ser	Asn	Ala	Asp	Thr	Tyr	Trp
		35					40					45			
Glu	Ser	Asp	Gly	Ser	Gln	Cys	Gln	His	Trp	Val	Arg	Leu	Thr	Met	Lys
		50				55					60				
Lys	Gly	Thr	Ile	Val	Lys	Lys	Leu	Leu	Leu	Ala	Val	Asp	Thr	Thr	Asp
65				70					75					80	
Asp	Asn	Phe	Met	Pro	Lys	Arg	Val	Val	Val	Tyr	Gly	Gly	Glu	Gly	Asp
			85						90					95	
Asn	Leu	Lys	Lys	Leu	Ser	Asp	Val	Ser	Ile	Asp	Xaa	Arg	Pro	Ser	Ser
		100						105					110		
Gly	Xaa	Val	Cys	Val	Leu	Glu	Asp	Met	Thr	Val	His	Leu	Pro	Ile	Ile
		115					120					125			
Glu	Ile	Arg	Ile	Val	Glu	Cys	Arg	Asp	Asp	Gly	Ile	Asp	Val	Arg	Leu
		130				135					140				
Arg	Gly	Val	Lys	Ile	Lys	Ser	Ser	Arg	Gln	Arg	Glu	Leu	Gly	Leu	Asn
145				150						155				160	
Ala	Asp	Leu	Phe	Gln	Pro	Thr	Ser	Leu	Val	Arg	Tyr	Pro	Arg	Leu	Glu
			165						170					175	
Gly	Thr	Asp	Pro	Glu	Val	Leu	Tyr	Arg	Arg	Ala	Val	Leu	Leu	Gln	Arg
		180						185						190	
Phe	Ile	Lys	Ile	Leu	Asp	Ser	Val	Leu	His	His	Leu	Val	Pro	Ala	Trp
		195					200					205			
Asp	His	Thr	Leu	Gly	Thr	Phe	Ser	Glu	Ile	Lys	Gln	Val	Lys	Gln	Phe
		210				215						220			
Leu	Leu	Leu	Ser	Arg	Gln	Arg	Pro	Gly	Leu	Val	Ala	Gln	Cys	Leu	Arg
225					230					235				240	
Asp	Ser	Glu	Ser	Ser	Lys	Pro	Ser	Phe	Met	Pro	Arg	Leu	Tyr	Ile	Asn
			245						250					255	
Arg	Arg	Leu	Ala	Met	Glu	His	Arg	Ala	Cys	Pro	Ser	Arg	Asp	Pro	Ala

	260		265		270										
Cys	Lys	Asn	Ala	Val	Phe	Thr	Gln	Val	Tyr	Glu	Gly	Leu	Lys	Pro	Ser
	275						280					285			
Asp	Lys	Tyr	Glu	Lys	Pro	Leu	Asp	Tyr	Arg	Trp	Pro	Met	Arg	Tyr	Asp
	290						295					300			
Gln	Trp	Trp	Glu	Cys	Lys	Phe	Ile	Ala	Glu	Gly	Ile	Ile	Asp	Gln	Gly
305					310					315				320	
Gly	Gly	Phe	Arg	Asp	Ser	Leu	Ala	Asp	Met	Ser	Glu	Glu	Leu	Cys	Pro
			325					330						335	
Ser	Ser	Ala	Asp	Thr	Pro	Val	Pro	Leu	Pro	Phe	Phe	Val	Arg	Thr	Ala
			340					345					350		
Asn	Gln	Gly	Asn	Gly	Thr	Gly	Glu	Ala	Arg	Asp	Met	Tyr	Val	Pro	Asn
	355					360						365			
Pro	Ser	Cys	Arg	Asp	Phe	Ala	Lys	Tyr	Glu	Trp	Ile	Gly	Gln	Leu	Met
	370				375						380				
Gly	Ala	Ala	Leu	Arg	Gly	Lys	Glu	Phe	Leu	Val	Leu	Ala	Leu	Pro	Gly
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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 240
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 480
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 540
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 2081

<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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 20 25 30
 Glu Ala Glu Pro Gln Trp Glu Arg Glu Gly Ala Arg Phe Thr Thr Pro

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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

Cys Ala Pro Pro Pro Ile Pro Leu Leu His Pro Pro Thr Ser Leu Thr
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 Val Ala Ala Ala Ala Arg Trp Pro Arg Gln Pro Arg His Pro Arg His
 35 40 45
 Thr Ser Pro Met Pro Pro Pro Ala Ala Leu Arg Pro Pro Ala Gly Pro
 50 55 60
 Arg Arg Pro Arg Xaa Pro Gly Gly Pro Gln His His Gln Pro Gln Pro
 65 70 75 80
 Pro Leu Trp Thr Pro Thr Pro Pro Ser Pro Ala Ser Asp Trp Pro Pro
 85 90 95
 Leu Pro Pro Asn Arg Pro Pro Gln Asn Pro Gly Pro Thr Leu Pro Trp
 100 105 110
 Arg Gln Arg Asp Lys Gly Gly Pro Ser Pro Leu Pro Glu Ala Arg Thr
 115 120 125
 Pro Trp Gly Gly Gly Glu Asp Val Ser Ala Gly Pro Leu Xaa Thr Pro
 130 135 140
 Phe Leu Ser Ala Pro Leu Val Pro Arg Ser Pro Gly Gly Glu Ser Ala
 145 150 155 160
 Asp Ser Ser Gln Ala Gly Thr Arg Leu Val Pro Glu His Ala Ala Ala
 165 170 175
 His Thr Gln Gly His Gly Pro Ser Gly Pro Gly Thr Trp Ser Gly Ser
 180 185 190
 Glu Arg Pro Gly Cys Leu Ala Asp Arg Thr Ser Glu Thr Thr Gln Pro
 195 200 205
 Ser Phe Glu Asp Ala Pro Ala Gln Pro Ser Pro Gly Val Pro Trp Arg
 210 215 220
 Thr Thr Leu Ala Glu Thr Leu Leu Ile Pro Gly Leu Glu Leu Leu Gly
 225 230 235 240
 Gly Arg Gln Ala Ser Thr Pro Thr Leu Gly Asn Ala Glu Pro Leu Arg
 245 250 255
 Met Cys Ala Arg Gly Arg Val Cys Val Phe Leu Arg Val Ser Leu Phe

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<210> 3441
 <211> 2074
 <212> DNA
 <213> Homo sapiens

<400> 3441
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<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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Ala Glu Leu Leu Met Ser Leu His Asp Leu Asp Val Gly Glu Ile Cys
35      40      45
Thr Val Asp Pro Cys His Lys Phe Thr Trp Cys Leu Asp Ala Cys Ile
50      55      60
Arg Glu Arg Phe Val Asp Ser Lys Arg Ala Arg Glu Leu Gln Gly Phe
65      70      75      80
Leu Asp Asp Val Lys Lys Gly Gln Glu Gln Val Leu Gly Asp Leu Ser
85      90      95
Met Ile Leu Cys Asp Pro Phe Ala Ile Asn Thr Leu Ala Leu Ser Thr
100     105     110
Val Arg His Leu Gln Glu Leu Val Gly Gln Glu Thr Leu Pro Arg Asp
115     120     125
Ser Pro Asp Leu Leu Leu Leu Leu Arg Leu Leu Ala Leu Gly Gln Gly
130     135     140
Ala Trp Asp Met Ile Asp Ser Gln Val Phe Lys Glu Pro Lys Met Glu
145     150     155     160
Val Glu Leu Ile Thr Arg Phe Leu Pro Met Leu Met Ser Phe Leu Val

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Asp Asp Tyr Thr Phe Asn Val Asp Gln Lys Leu Pro Ala Glu Glu Lys
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Ala Pro Val Ser Tyr Pro Asn Thr Leu Pro Glu Ser Phe Thr Lys Phe
      195      200      205
Leu Gln Glu Gln Arg Met Ala Cys Glu Val Gly Leu Tyr Tyr Val Leu
      210      215      220
His Ile Thr Lys Gln Arg Asn Lys Asn Ala Leu Leu Arg Leu Leu Pro
      225      230      235      240
Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu
      245      250      255
His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu
      260      265      270
Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser
      275      280      285
Pro Arg Lys Glu Asn Val His Arg His Ala Leu Arg Leu Leu Ile His
      290      295      300
Leu His Pro Arg Val Ala Pro Ser Lys Leu Glu Ala Leu Gln Lys Ala
      305      310      315      320
Leu Glu Pro Thr Gly Gln Ser Gly Glu Ala Val Lys Glu Leu Tyr Ser
      325      330      335
Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro
      340      345      350
Ala Gln Ala Ala Glu Thr Pro Ala Leu Glu Leu Pro Leu Pro Ser Val
      355      360      365
Pro Ala Pro Ala Pro Leu
      370

```

<210> 3443

<211> 2070

<212> DNA

<213> Homo sapiens

<400> 3443

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ctggccgtaa atgccgagga ggacgcctgg ttacgggcac aggtcatctc aacagaagag
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120
gcatacaaat taaccgccaa gttttgttca ctctcatttc aagctacaaa atgtaagctt
180
gcaggcttgg aagtccctaag cgatgacctt gatctagtga aggtgggttga atctttaact
240
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300
tacgatacct caggagaaga tgatatcaat atcaatgcc aactgcttgaa ggctatatgt
360
gacaagtcac tagaggttca cctgcagggtt gacgccatgt acacaaatgt caaaataact
420
aatatttgct ctgatgggac actctactgc caggtgcctt gtaagggctc gaacaagctc
480
agtgcacctt tacgtaagat agaggactac ttccattgca agcacatgac ctctgagctg
540
ttgttttcat tacccttctg tgggaaaate tgcctcttcc attgcaaaag aaaaagggtta
600

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cgagtagaga tcacaaatgt tcacagcagc cgggctcttg atgttcagtt cctggactct
660
ggcactgtga catctgtaaa agtgtcagag ctcagggaaa ttcacacctg gttttacaaa
720
gaaatgattg caataccacc tcaggccatt aagtgtctgt tagcagatct tccacaatct
780
attggcatgt ggaccacaga tgcagtgtgt tggttaagag attctgtttt gaattgtctg
840
gactgttagca ttaaggttac aaaagtgatg gaaaccagag ggatcgacac tgtttattta
900
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960
gacttgtgga agcatcagaa ggatgtgttt ttgagtgtcca tatccagtgg agctgactct
1020
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1080
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1140
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1260
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1320
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1380
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1440
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1620
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1680
gataccctga ttcatgatgt tatgtcagag tatctgatag agctttcaaa agttaattaa
1740
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1800
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1860
atatgcttat gttttagtaa agatatttaa caagttttgt tttacacagag ttgacttttc
1920
aaagaaaaat gtacttgaat tattactata atattagaat aaaaatgttt atcaatataa
1980
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2040
aaaaaaaaaa aaaaaaaaaa aaaaaagggg
2070

<210> 3444

<211> 579

<212> FRT

<213> Homo sapiens

<400> 3444

Leu Ala Val Asn Ala Glu Glu Asp Ala Trp Leu Arg Ala Gln Val Ile
 1 5 10 15
 Ser Thr Glu Glu Asn Lys Ile Lys Val Cys Tyr Val Asp Tyr Gly Phe
 20 25 30
 Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
 35 40 45
 Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
 50 55 60
 Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
 65 70 75 80
 Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
 85 90 95
 Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
 100 105 110
 Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
 115 120 125
 Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
 130 135 140
 Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
 145 150 155 160
 Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
 165 170 175
 Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
 180 185 190
 Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
 195 200 205
 Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
 210 215 220
 Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
 225 230 235 240
 Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
 245 250 255
 Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
 260 265 270
 Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
 275 280 285
 Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
 290 295 300
 Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
 305 310 315 320
 Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
 325 330 335
 Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
 340 345 350
 Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
 355 360 365
 Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
 370 375 380
 Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
 385 390 395 400
 Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile


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              405              410              415
His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val
              420              425              430
Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala
              435              440              445
Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr
              450              455              460
Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu
465              470              475              480
Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu
              485              490              495
Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln
              500              505              510
Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys
              515              520              525
Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp
              530              535              540
Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr
545              550              555              560
Asp Thr Trp Ile His Asp Phe Met Ser Glu Tyr Leu Ile Glu Leu Ser
              565              570              575
Lys Val Asn

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<210> 3445

<211> 2086

<212> DNA

<213> Homo sapiens

<400> 3445

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120
cctgcacgag agttgggccc cgggcggggg tggagcctac tcggggcgac tcgatgggac
180
gccttagaag gagagagcct tgcgctgtct ttctctcccg cctctgatgc agaatttgat
240
gctgtggttg gatatttaga ggacattatc atggatgacg agttccagtt attacagaga
300
aatttcattg acaagtacta cctggagttt gaagacacag aagagaataa actcatctac
360
acacctattt ttaatgaata catttctttg gtagaaaaat acattgaaga acagctcgtg
420
cagcggattc ctgagttcaa catggcagcc ttcaccacaa cattacacca tctgttccgt
480
ttgaggcacc ataaggatga agtggctggg gacatattcg acatgctgct caccttcaca
540
gattttctgg cttttaaaga aatgtttttg gactacagag cagaaaaaga aggccgagga
600
ctggacttaa gcagtggcct agtgggtgact tcattgtgca aatcatcttc tctgccagct
660
tcccagaaca atctgcggca ctaggctcta cctccagcca atgaatggga tcattctgga
720

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tgaccaccagc ccaataggct cagctcatga tgacagaaca catcttggaa agactgactc
780
tggttatgtaa ctcttcattt atgttaagta ttaataggctc aaacacaaaa tgaccataac
840
ctcctggacc tatttattcct gaaacacctt cttgtattca ttaacatag tactcctccc
900
cacctcaagt agacacctct ctcaggagct tctgagtcag acgcctctgg agcgagccct
960
atgtcaggca cttccacctg ggggcccttc ccagcatac ctgctgggtg gtaagtgtgg
1020
actaacccgc gcgccaccac ctctgttcca gcaggctctg catgaatctt tbtgcaactg
1080
cacctctttt tcacatgggc cacagtttca gtacttcagc ctcagtgaggg ttcctgatgt
1140
ttatctaggg tgttactcaa gcccgatttg agattttgga gtctcctgtg atcacatctt
1200
gtctcggctg taggaatcaa cagaaggaga cgtcctctac ataaaagctc catgtgaaaa
1260
gctactccta gtcttaacat ttgcagtcct tgtgtcactg tcttctgggc ctgatgtagt
1320
cccactgttt ctagaagtct cttttaagca ttatttttga aaaaaaaaaa atttttatag
1380
atgaatactc aggttaacct agtggatgtg atcttggaa ttcctatgatt atccacttaa
1440
agatcaaaagt attatatgct ggtgtctttt taggtgtttg ttagtactgt gaaggcaaaa
1500
atgctttcta cattgacatt cattcctatt ttactgggca cctatgaatg tatgctgtgt
1560
gctagaaata gactaaaaca tattcctata gcattgttagt gtgtttgcat gtttctgtaa
1620
aatcctttgt gtataaacca gtttgaagg ttctctgggt taggtaggga ctctgcagtt
1680
tcttctctgc aaatctctc ctaccaagat ggtgtccac tgtccagccc agcatgagta
1740
gcaggtagag cacagcttta ctggctgttt gtatgctttg gtttagtgca atgtgtggta
1800
gattacttat cagaaaaacat atatgtcctc tctagaacga agaaaaagca tagtagttca
1860
attcccagtg tgtccctttg attttttttt ttttaatagta aaaaataagaa tctgtactga
1920
cttttctactt ggccattctg gtttttaagg acaagctaca agctctgtgt tctgtactg
1980
atgtgtcact tattaataac ttttgtacca tgagtaaaac ttcaggtgtt tcgcaagaac
2040
caccattctc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
2086

<210> 3446

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3446

Met Asp Ala Leu Glu Gly Glu Ser Phe Ala Leu Ser Phe Ser Ser Ala

1	5	10	15
Ser Asp Ala Glu Phe Asp Ala Val Val Gly Tyr Leu Glu Asp Ile Ile			
20	25	30	
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr			
35	40	45	
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro			
50	55	60	
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln			
65	70	75	80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr			
85	90	95	
Leu His His Leu Phe Arg Leu Arg His Lys Asp Glu Val Ala Gly			
100	105	110	
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys			
115	120	125	
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp			
130	135	140	
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu			
145	150	155	160
Pro Ala Ser Gln Asn Asn Leu Arg His			
165			

<210> 3447

<211> 936

<212> DNA

<213> Homo sapiens

<400> 3447

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 120
 ggggtgcgct ttgaccgcga gagggcgcg cgcctgtggg aagccgtgtc cggtgcccag
 180
 ccggtgggta gagaggaaat ggagcacatg atccagaaga accaatgtct cttaccaaac
 240
 acccagtgtg aggtttgtct cgccttgctt atttctgagt ccagaaagct ggcacattac
 300
 cagagcaaaa aacatgccaa caaagtgaag agatacctag caatccatgg aatggagaca
 360
 ttaaaggggg aaacgaagaa gctagactca gatcagaaga gcagcagaag caaagacaag
 420
 aaccagtgtc gccccatctg taacatgacc ttttctctcc ctgtcgtggc ccagtcgcac
 480
 tacctgggga agaccacgc aaagaactta aagctgaagc agcagtcac taagtgga
 540
 gccttgacc agaatagaga gatgatagac ccagacaagt tctgcagcct ctgccatgca
 600
 actttcaacg accctgtcat ggtcaacaa cattatgtgg gcaagaacaa cagaaaacag
 660
 gagaccaagc tcaactaat ggcacgctat gggcggttgg cggacacctg tgtcactgac
 720
 tttccagctg gaaagggcta cccctgcaaa acatgtaaga tagtgctgaa ctccatagaa
 780

cagtaccaag ctcatgtcag cggcttcaaa cacaagaacc agtcacacaaa aacagtggca
 840
 tcatcccttg gccagattcc aatgcaaagg caaccattcc agaaagactc aaccaccttg
 900
 gaagactaga ggtgattctg cccagcatcc catatt
 936

<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

Thr Arg Glu Gly Phe Ala Gly Lys Met Glu Tyr Pro Ala Pro Ala Thr
 1 5 10 15
 Val Gln Ala Ala Asp Gly Gly Ala Ala Gly Pro Tyr Ser Ser Ser Glu
 20 25 30
 Leu Leu Glu Gly Gln Glu Pro Asp Gly Val Arg Phe Asp Arg Glu Arg
 35 40 45
 Ala Arg Arg Leu Trp Glu Ala Val Ser Gly Ala Gln Pro Val Gly Arg
 50 55 60
 Glu Glu Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr Asn
 65 70 75 80
 Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln Lys
 85 90 95
 Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg Tyr
 100 105 110
 Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys Leu
 115 120 125
 Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys Cys
 130 135 140
 Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser His
 145 150 155 160
 Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln Ser
 165 170 175
 Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro Asp
 180 185 190
 Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met Ala
 195 200 205
 Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys Leu
 210 215 220
 Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr Asp
 225 230 235 240
 Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val Leu
 245 250 255
 Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His Lys
 260 265 270
 Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro Met
 275 280 285
 Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp
 290 295 300

<210> 3449

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3449

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 120
 ccggcccttc tggccggcac caaccccggt gctgtcgtcg cggatggagg cagttgcccc
 180
 gcacactacc cgggtgcaga gtgcgtcttc aaggggggat tgaggagact ctctctcttc
 240
 atccgcacgc acaatatcgg gcagaaagat aatcacggaa atactccttt acaccttgct
 300
 gtgatgttag gaaataaaga atgtgcccat ttacttttgg ctcaaatgc tccagtcaag
 360
 gtgaaaaatg ctacgggatg gagccctctg gcggaagcca tcagctatgg agataggcag
 420
 atgattacag ctctttttgag gaagcttaag cagcaatcca gggaaagtgt tgaagaaaaa
 480
 cgacctcgat tattaataag cctgaaagag ctagggtgact tttatctaga acttctactg
 540
 gattttcaaa gctgggtgac ttacttttcc cgaattctgc ctcccgatgc atgtaaaata
 600
 tacaacaag gtatcaatat caggcttgac acaactctca tagactttac tgacatgaag
 660
 tgccaacgag gggatctaa cttcattttc aatggggatg cggcgccctc tgaattcttt
 720
 gtagtattag acaatgaaca aaaagtttat cagcgaatac atcatgaggc tcacatccca
 780
 ggaatcagag atggaaacag aagaagaggt ggatatattta atgagcagtg atatttactc
 840
 tgcaacttta tcaacaaaat caatttcttt caccggt
 877

<210> 3450

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3450

Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro
 1 5 10 15
 Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser
 20 25 30
 Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
 35 40 45
 Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
 50 55 60
 Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
 65 70 75 80
 Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
 85 90 95
 Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

```

100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145      150      155
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225      230      235
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
260      265      270
Phe Asn Glu Gln
275

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<210> 3451

<211> 595

<212> DNA

<213> Homo sapiens

<400> 3451

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120
gaaatattca gtaagtagtg ccctgccatt gcagggttttg atgtctctct gccagcaaaa
180
ccagcatga acctctggct tgtggagatg tcttcagct ggaaacctga gtgagcgaa
240
ttgaactgtg agggcggcac aactgagaga agattctgcc tccgaacct ctgaatgaga
300
gtctgaagga tctgatcttg ggttgcttta cttagtctct cgtggtattg gtgtgtgtca
360
atgctggagt ccttcagctc cttagctgaa aagagctgaa ggggccttgg aacctggggg
420
agctgcttac tttgcaaggt tttgccagc tgcgtgctgc tagctggatg ggaactgtctc
480
tcattaaact cctctctggt gctattttct gttgtgttg tagctatgag cgctcccatc
540
cccttctct cttttgcagg caggggaacc gcttccattt caactttggg gagag
595

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<210> 3452

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3452

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Met Glu Ala Val Pro Leu Pro Ala Lys Glu Glu Arg Gly Met Gly Ala
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Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
 20           25           30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
 35           40           45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
 50           55           60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
 65           70           75           80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
 85           90           95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
100          105          110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
115          120          125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
130          135          140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145          150          155          160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
165          170          175
Ser Ser Pro Thr Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
180          185          190

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<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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ggcgggcgag ctgtgtcgcc ctcggggctg ccgggtccag tggcacaagg attaaaggaa
120
gcgttagtgg atacgctcac cgggataccta tccccagtac aggaggtgcg ggcggctgct
180
gaagaacaga ttaaggtgct ggaggtgacg gaggaatttg gtgttcactt ggcagaactg
240
actgtagatc cccagggggc actggcaatc cgtcagctgg catcagtcac ctgtaaacaa
300
tatgtggaga ctactgggtg tgcccaatca gagaaattta ggccctctga aactacagaa
360
agggcaaaaa ttgttatccg ggagctattg cctaatgggt tgagagaatc gataagcaaa
420
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477

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<210> 3454

<211> 159

<212> FRT

<213> Homo sapiens

<400> 3454

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 20 25 30
 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
 35 40 45
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Glu Glu Gln Ile
 50 55 60
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
 65 70 75 80
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
 85 90 95
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
 100 105 110
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
 115 120 125
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser
 130 135 140
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu
 145 150 155

<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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 120
 cttgtcggag actgagctat tggcagtgcc ttcagctctg agctcaggca cctcgaacat
 180
 tgtttttgtc gttaaggatc ctaaaagtgt gtggggagtg atcacatttt tctcaacatc
 240
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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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Lys	Lys	Gln	Arg	Arg	Arg	Gly	Arg	Lys	Glu	Gly	Glu	Glu	Asp	Gln	Asn
			20					25					30		
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
			35				40						45		
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
			50			55					60				
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
					85				90					95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
					100				105					110	
Val	Ile	Phe	Pro	Gln											

115

<210> 3457
 <211> 646
 <212> DNA
 <213> Homo sapiens

<400> 3457
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 120
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 180
 aagtgaggat gcgtatgttn gggtggctgt gtctgtatct gcatttgcatt gngtgtattg
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 360
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 420
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 646

<210> 3458
 <211> 61
 <212> PRT
 <213> Homo sapiens

<400> 3458
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 Arg Cys Val Xaa Val Pro Gly Cys Val Cys Ala Cys Val Cys Val Asp
 20 25 30
 Ile Cys Ala Cys Leu Phe Thr His Arg Trp Glu Cys Arg Val Cys Ile
 35 40 45
 Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys
 50 55 60

<210> 3459
 <211> 592
 <212> DNA
 <213> Homo sapiens

<400> 3459
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 120
 gacctactt cactgcaggg ggctcagccc agtctgcctc aggcagaaca aggggtctggg
 180
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 240
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 300
 ccttccctgt gtgcagctc agtttgcctg ctgcagaata agcaccacgc tccctcgtgg
 360
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 420
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 480
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 592

<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

Met	Gly	Pro	Ser	Gly	Pro	Ala	Ala	Thr	Pro	Thr	Thr	Trp	Asp	Leu	Pro
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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35				40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
			50				55				60				
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
			65		70				75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85				90						95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100				105						110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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 120
 agcttttcgt ccgtggcaga tgtcagctcc agtcgcagcc gcaccttccg gatggccctg
 180

ctggaagcca gcacgagggt ggctgggatg ctggcaagcc tcctcggggg ccaactggctc
 240
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 300
 ctctatgcag ctttctgctt tggtagagacc ttaaaggagc caaagtcac coggctcttc
 360
 acgttcgctc accacgacac cattgtccag ctctatgtgg ctcccgcccc agagaagtec
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 474

<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

Met	Ala	Leu	Leu	Glu	Ala	Ser	Ile	Gly	Val	Ala	Gly	Met	Leu	Ala	Ser
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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
				20				25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
				35				40					45		
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
				50			55				60				
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
				65			70			75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
				85					90					95	
Val	Ile	Thr	Val	His											
				100											

<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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 420
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 480

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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 20 25 30
 Glu Leu Pro Glu Arg Arg Arg Arg Gln Gln Arg Gln Gly Lys His His

35	40	45
Pro Asn Tyr Leu Met Ala	Asn Glu Arg Met Asn Leu Met Asn Met Ala	
50	55	60
Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg		
65	70	75
Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met		
85	90	95
Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly		
100	105	110
Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val		
115	120	125
Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu		
130	135	140
Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met		
145	150	155
Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu		
165	170	175
Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu		
180	185	190
Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala		
195	200	205
Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile		
210	215	220
Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu		
225	230	235
Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu		
245	250	255
Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys		
260	265	270
Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala		
275	280	285
Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val		
290	295	300
Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys		
305	310	315
Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His		
325	330	335
Leu Lys Glu Glu Thr Gln Leu Arg Leu Asp Val Glu Lys Glu Leu Glu		
340	345	350
Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu		
355	360	365
Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln		
370	375	380
Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu		
385	390	395
Gln Ser Ser Asp Leu Gly Val Lys Gln Lys Ser Glu Leu Asn Ser Arg		
405	410	415
Leu Glu Glu Lys Thr Asn Gln Met Ala Ala Thr Ile Lys Gln Leu Glu		
420	425	430
Gln Arg		

<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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180
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<210> 3466
<211> 315
<212> PRT
<213> Homo sapiens

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<400> 3466

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 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ala Ile Lys Arg
 65 70 75 80
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 85 90 95
 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
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 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
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 Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
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 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
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 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
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 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
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 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
 225 230 235 240
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
 245 250 255
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
 260 265 270
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
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<210> 3467

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3467

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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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<210> 3469

<211> 1710

<212> DNA

<213> Homo sapiens

<400> 3469

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<210> 3470

<211> 322

<212> PRT

<213> Homo sapiens

<400> 3470

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 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
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 Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
 65 70 75 80
 Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
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 Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
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 Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
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 Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
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 Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
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<210> 3471

<211> 2335

<212> DNA

<213> Homo sapiens

<400> 3471

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<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
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Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
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Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
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Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
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Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
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Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
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Ser	Glu	Pro	Asp	Glu	Ala	Val	Asp	Glu	Cys	Cys	Leu	Leu	Pro	Ser	
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<210> 3473
<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

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 780
 gccaggggacc tggcacctcc catctccacc gatggctcgc gccaggacat ggcgactcc
 840
 aaccctcagc tcaagatctg tctcctgccg gaccagaaga actcaaaagc gaccggggtc
 900
 aaacgcaaga cccagaagcc cgtgttttag gagcgctaca ccttcgagat ccccttctg
 960
 gaggcccgag ggaggaccct gctcctgacc gtggtggatt ttgataagtt ctcccgccac
 1020
 tgtgtcattg ggaagtttct tgtgcctttg tgtgaagttg acctgggtcaa gggcgggcac
 1080
 tgggtggaag cgctgattcc cagtctctcag aatgaagtgg agctggggga gctgctctg
 1140
 tcaactgaatt atctcccaag tctggcgaga ctgaatgttg atgtcattcg agccaagcaa
 1200
 ctctctcaga cagatgtgag ccaaggttca gacctcttg tgaataatcca gctgggtgcat
 1260
 ggactcaaac ttgtgaaaaa caagaagacg tcctctctaa ggggcacaaat tgatccttcc
 1320
 tacaatgaat ccttcagctt caaagttccc caagaagaac tggaaaatgc cagcctagtg
 1380
 ttacagattt tcggccacaa catgaagagc agcaatgact tcatcgggag gatcgctatt
 1440
 ggccagctact cttcaggccc ctctgagacc aaccactgga ggcgcatgct caacacgcac
 1500

cgcacagccg tggagcagtg gcatagcctg aggtcccgag ctgagtgatga cgcggtgtct
 1560
 cctgcctccc tggaggtgac ctgagggcgtg caggggaaggc agctttcatt tgtttaaaaa
 1620
 aaaaaagacg gaaaaaaatg tgtcacatac tattacatcc
 1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
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Ile	Ser	Gly	Leu	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln
		20						25				30			
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
		35				40					45				
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65				70					75					80	
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85				90					95		
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
		100						105				110			
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
		115				120					125				
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145				150					155					160	
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp
			165					170					175		
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
		180						185				190			
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
		195				200					205				
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215					220				
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225				230					235					240	
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
			245					250					255		
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
		260						265					270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
	275					280					285				
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295					300				
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305					310				315				320		
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
          385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
          465          470

```

<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

```

acgcgtctcgg agggctgggt cttctgcacg cccgcccgca agctcctctg gctgggtcgtg
60
cagccctctct tctactcact acggccgctc tgcgtccacc ccaaggccgt gaccgcgatg
120
gagggtgctca acacgctggt gcagctggcg gcgacctgg ccatctttgc cctttggggg
180
ctcaagcccc tggtctacct gctggccagc tccttctctg gcctgggcct gcaccccatc
240
tcggggccact tcgtggccga gcactacatg ttccctcaagg gccacgagac ctactcctac
300
tatgggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgaactc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgccga gtactacgac
420
cacttgccgc agcaccactc ctgggtgaag gtgctctggg attttgtggt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

```

<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

```

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1          5          10          15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
      65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
      145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
      165                170

```

<210> 3477

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3477

```

gcgcgcctcgc gctgcctgcc cggcgggtctc cgggtcctcgc tccagaccgg ccaccggagc
60
ttgacctcct gcacgcaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgctgc ccgagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcgcttt ttcttgtgct tagacgttct aacaacagat gtctcaggca gacctttatc
240
ttgtctccc gataatgtaa ttgttaaatg tctcctccac ttaccaactc ttactgcaag
300
tgagaataacc ggtagtggat gatttttctc agaaggcatc ctgatcatct tgtaca
356

```

<210> 3478

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1      5      10      15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
      20      25      30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
      35      40      45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
      50      55      60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65              70              75              80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
      85              90              95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
      100              105              110
Ala Glu Ala Arg
      115

```

```

<210> 3479
<211> 797
<212> DNA
<213> Homo sapiens

```

```

<400> 3479
nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccocggct ctgacaggat catgctgcag aagtggcaga aaaggacat cagcaatltt
120
gagtatctca tgtacctcaa caccgaggct gggagaacct gcaatgacta catgcagtag
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaatccg
240
aagattttcc gggatcttcc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacaccc actactctct gcccatcctc gtggcctcct acctgggtccg gatgccaccc
420
ttcaccocagg ccttctgcgc tctgcagggtg agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgctgtgtac acaagactaa gacctgtgct tgaacaaaga
540
caggatgctc ctgctaaaaa cttagtcatt agccagtgtat tcccagttga cattggctcc
600
aggattctgg ctccaccagcc aaggcaggct gttcttctct agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaataaaga aaagcaggaa acttgagagac tagaaaaggca
780
ggcggccaag gattaga
797

```

```

<210> 3480
<211> 192
<212> PRT
<213> Homo sapiens

```

```

<400> 3480
Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
1      5      10      15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
20      25      30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```


tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttggaga aggagaagag
 900
 cagactgctg gctgaggcag cacttgagtt gcggaggag aacacgaggc aggaacggat
 960
 tctggccctt gccaaagcag tagccatgct gcggggacag gaccccagaga gagtgaacct
 1020
 ccaggactat cgctccacag acagtgatga cgacgaggat gaggagacag ccatccaaag
 1080
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc
 1140
 tgcagagcag gcttctgcac cctggacgca accccgcggg gcagagcctg agggccaggga
 1200
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtgctgca tctgcaatga
 1260
 ggatgccacc ctacgctgag ctggctgcga tggggacctc ttctgtgccc gctgcttccg
 1320
 agaggggcat gatgccttgg agcttaaaaga gcaccagaca tctgcctact ctctccacg
 1380
 tgcaggccaa gacgactgaa gacacccctg tctcccgga agggcagtc caccaggcagc
 1440
 ggcaaccatt tctgggcccc gccacaggac gtccgatggg agagcttgct tggctctact
 1500
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaaa gattctccat
 1560
 tcgagagaat gactggggagg gaagaagtcg gggccctcct attagaagcc cagactggaa
 1620
 gtgagaggca tgatggggag agaccagact gaattctacgg gtgagccctg taacctggct
 1680
 ctagggcaca ggccctctcc ctggcactta gtgggtctaa taaagtatgt tgattcattg
 1740
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa aaaa
 1794

<210> 3482

<211> 206

<212> PRT

<213> Hcmo sapiens

<400> 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
1				5				10				15			
Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
			20					25				30			
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
			35				40				45				
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
			50				55				60				
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
					70					75				80	
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
					85				90					95	
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
					100				105				110		
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu


```

      115              120              125
Arg  Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu
      130              135              140
Ala  Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser
      145              150              155              160
Thr  Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu
      165              170              175
Pro  Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp
      180              185              190
Pro  Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser
      195              200              205

```

<210> 3483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3483

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ncggccgcgg cgcggaacgg cgccctccgc ccaccatgg gcaacagcgc gagccgcaac
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gacttcgagt ggggtctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccggc gcctcaagtg ggcggggctg
180
gtgctgggtg tgggtgcagat gctggcctgc tggctgggtg gcgggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgctgac gctggccatc
300
cagcacatct cgcacaacgc ggccttcggc acggggcctg cggcacgcaa ccgctggctg
360
gccgtgttgc ccaacctgcc cgtgggtgtg ccctacgccc cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc caccgct
477

```

<210> 3484

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3484

```

Met Gly Asn Ser Ala Ser Arg Asn Asp Phe Glu Trp Val Tyr Thr Asp
      1              5              10              15
Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala
      20              25              30
Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu
      35              40              45
Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu
      50              55              60
Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val
      65              70              75              80
Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala
      85              90              95
Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala

```

```

      100              105              110
Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
      115              120              125
Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
      130              135              140
Pro Thr Arg
145

<210> 3485
<211> 812
<212> DNA
<213> Homo sapiens

<400> 3485
tatttatttta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acattttttac
60
tgcatgctta aaacatttaa tttctatta tacagttaaa catttgcttg aattcagtg
120
gtctaaaaaa ttttatgtt ctcagggttag cagttagttg agcagagtc attggtgaag
180
caatctagtt attggcaaat tctaacacat ggtaagggtgt gggggaaagg atttaaaata
240
acagaaaaat gtaagtacaa acatacataa cagcaaaata aaactcactt taacaaaaat
300
ttatttaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
360
ctcctccgg ttattttatg tctttttggg aggaagggag atgaggggtt ttgtttttta
420
acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
480
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaggaggt
540
atgagtcag aaaaaaatcc ttcaggaacc ttcaagattg aagaagaac tttctttaac
600
attaaagacc aagtattatt ggccagagtc tcttttgaga ttgtgagttt ttcattaact
660
ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcactacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
ggaacacgca tgtccttaaa ctcaaaggat cc
812

<210> 3486
<211> 117
<212> PRT
<213> Homo sapiens

<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
1 5 10 15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
20 25 30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```

35	40	45
Leu Thr Ile Ser Glu Glu Thr	Leu Ala Asn Asn Thr	Trp Ser Leu Met
50	55	60
Leu Lys Glu Val Leu Ser Ser	Ile Leu Lys Val Pro	Glu Gly Phe Phe
65	70	75
Ser Gly Leu Ile Leu Leu Ser	Glu Leu Leu Pro Leu	Pro Leu Pro Met
85	90	95
Gln Thr Thr Gln Val Ser	Leu Pro His Asn Met	His Leu Ile Asn Asp
100	105	110
Cys Ser Asn Thr Phe		
115		

<210> 3487

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3487

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nnattgtatc aaaaatcctag atttgaataa cttattattt taaataatca gtaactaaaa
60
ccaagcaatc catcacacaa agaggggaaa gggtaatat ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gcctgaaagt ttaaattttt cctggattta aatttaaaga
180
taaatattgt tttcagtgaa atatcctcaa tagcaatttt accaaagagg ccttctcttg
240
aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tggccaggcg tggctgtcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
360
tcacgaggtc aagaaatcga gaccagcctg gctaacacag tgaaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaac ctattaatca gcaaataact actgaatacc
540
tactacatcc caggcagtg tctaggcact ggggagtcgg cagcgaacaa aactgttctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgtaatcat gaaacatttt gattttttaa aaattttaac tacagtcaac cttaatttca
720
cagatacaaa taatctgcat ttccccaat cccgctgctc ttagagaagc tt
772

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<210> 3488

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3488

Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
1 5 10 15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

```

                20                25                30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
                35                40                45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
                50                55

```

<210> 3489

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3489

```

tagctaacac tccactatgg gagcccatct cctcccaggg ccaggagagac caggagagacc
60
aggagagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gccagggtg ccccatgagg cctgggtggt ggaggcagag ggtatccott gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac
240
ctgtaatccc agcactttgg agagccccaa gacgacggat cacgagtc
288

```

<210> 3490

<211> 90

<212> PRT

<213> Homo sapiens

<400> 3490

```

Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1                5                10                15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
                20                25                30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
35                40                45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
50                55                60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65                70                75                80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
                85                90

```

<210> 3491

<211> 568

<212> DNA

<213> Homo sapiens

<400> 3491

```

gggaaccgac gtccctctgt ggtgaaattc caccocctca cgccgtgcat cgccgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctccgtacac gagggctact gccatggagat atctgaatgg ccaggactgc
180

```

tcgtcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttctgat
 240
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcgacat gctgccaacg
 300
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga cgggcctect catgagctca
 360
 ggagacgtgc ggaatcgtccg gatctggggac acagaccgtg agatgaaggt gcaggacatc
 420
 cctacgggcg cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcactcatc
 480
 gtggtctggc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa
 540
 tgccgcgtca tgacgtaccg ggagcaca
 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
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Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
			20					25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
		50				55				60					
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70				75					80	
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85					90					95		
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
		100					105					110			
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115					120					125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
		130				135				140					
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150				155					160	
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
			165					170						175	
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
			180					185							

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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120
aatcactctg aaagatcaga caatagatca gaagcttctg agcgcttctga ccatgaggac
180
aatgacccct cagatgtaga tcagcacagt ggatcagaag ccctaataga tgatgaagac
240
gaaggtcata gatcggatgg agggagccat cattcagaag cagaagggtc tgaaaaaagca
300
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaaag
360
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420
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat
480
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggta
540
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagcgtgtc
600
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac
660
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat
720
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcattctga ttcagaagcg
780
gatagtgaac ctgaggtgcc aaaagataat agtggaaaca tggattttatt tggaggtgca
840
gatgatattc cttcaggagg tgatggagaa gacaaaccac ctactccagg acagcctggt
900
gatgaaaaat gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata
960
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1020
cccaactttc tcagtgtaga gccagacct tttgatcctc agtattatga agatgaattt
1080
gaagatgaag aaatgctgga tgaagaaggt agaaccaggt taaaattaaa ggtagaaaat
1140
actataagat ggaggatagc ccgagatgaa gaaggaaagt aaattaaaga aagcaatgct
1200
cggatagtca agtgggtcaga tggaaagcatg tccctgcatt taggcaatga agtgtttgat
1260
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1320
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1380
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1440
agaatcttgc caatggctgg tctgtatcct gaatgccaac gcacagaagt gattaagaaa
1500
gaagaagaac gtttgagggc ttccatcagt agggaaatctc agcagcgccg aatgagagag
1560
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag
1620
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1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa
 1740
 gctcaaaagt tactcaaaagc aaagaaactt accagtgatg aggaaggtga accttcgga
 1800
 aagagaaaaag cagaagatga tgataaagca aataaaaaagc ataagaagta tgtgatcagc
 1860
 gatgaagagg aagaagatga tgattgaagt atgaatatg aaaacatttt atatatttta
 1920
 ttgtacagtt ataaatatgt aaacatgagt ttttttgatt gaaatgaatc gatttgcttt
 1980
 tgtgtaattt taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta
 2040
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc
 2100
 aggtggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggaggctgag
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 2220
 cactccagcc tggcgacaga gcta
 2244

<210> 3494
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 3494
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 Gln Pro Ser Asn Lys Glu Leu Phe Gly Asp Asp Ser Glu Asp Glu Gly
 20 25 30
 Ala Ser His His Ser Gly Ser Asp Asn His Ser Glu Arg Ser Asp Asn
 35 40 45
 Arg Ser Glu Ala Ser Glu Arg Ser Asp His Glu Asp Asn Asp Pro Ser
 50 55 60
 Asp Val Asp Gln His Ser Gly Ser Glu Ala Pro Asn Asp Asp Glu Asp
 65 70 75 80
 Glu Gly His Arg Ser Asp Gly Gly Ser His His Ser Glu Ala Glu Gly
 85 90 95
 Ser Glu Lys Ala His Ser Asp Asp Glu Lys Trp Gly Arg Glu Asp Lys
 100 105 110
 Ser Asp Gln Ser Asp Asp Glu Lys Ile Gln Asn Ser Asp Asp Glu Glu
 115 120 125
 Arg Ala Gln Gly Ser Asp Glu Asp Lys Leu Gln Asn Ser Asp Asp Asp
 130 135 140
 Glu Lys Met Gln Asn Thr Asp Asp Glu Glu Arg Pro Gln Leu Ser Asp
 145 150 155 160
 Asp Glu Arg Gln Gln Leu Ser Glu Glu Glu Lys Ala Asn Ser Asp Asp
 165 170 175
 Glu Arg Pro Val Ala Ser Asp Asn Asp Asp Glu Lys Gln Asn Ser Asp
 180 185 190
 Asp Glu Glu Gln Pro Gln Leu Ser Asp Glu Glu Lys Met Gln Asn Ser
 195 200 205
 Asp Asp Glu Arg Pro Gln Ala Pro Asp Glu Glu His Arg His Ser Asp

210	215	220
Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp		
225	230	235
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser		240
	245	250
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly		255
	260	265
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp		270
	275	280
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly		285
	290	295
Leu Pro Gln Asp Gln Gln Glu Glu Pro Ile Pro Glu Thr Arg Ile		300
305	310	315
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr		320
	325	330
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp		335
	340	345
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu		350
	355	360
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp		365
	370	375
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala		380
385	390	395
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn		400
	405	410
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His		415
	420	425
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys		430
	435	440
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg		445
	450	455
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile		460
465	470	475
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu		480
	485	490
Met Ile Lys Lys Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu		495
	500	505
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser		510
	515	520
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Gly Glu		525
	530	535
Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile		540
545	550	555
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser		560
	565	570
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser		575
	580	585
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp		590
	595	600
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu		605
	610	615
Glu Asp Asp Asp		620
625		

<210> 3495
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<400> 3495
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 120
 gcgtcccccg aggagatcaa gaaggcctat cggaaagctgg cgctcaagta ccaccgggac
 180
 aagaaccocgg atgaggggcga gaagtgttaa ctcatatccc aggcataatga agtgctttca
 240
 gatccaaaga aaagggatgt ttatgaccaa ggcggagagc aggcataatga agaaggaggc
 300
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgt
 360
 ggacggatgg ctagagagag aagaggcaag aatgtgttac accagttatc tgtactctt
 420
 gaagatctat ataatggagt cagcaagaaa ttggccctcc agaaaaatgt aatttgtgag
 480
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgct gtgcaagggg
 540
 cgggggatgc agatccacat ccagcagatc gggcggggca tggtagacca gatccagacc
 600
 gtgtgcacag agtgcaaggc ccagggtgag cgcatacaac ccaaggaccg ctgcgagagc
 660
 tgcagcgggg ccaaggtgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt
 720
 atgaaaagat ggcaaaagat actatttcac ggagaaggag atcaggagcc tgagctggag
 780
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 840
 catgacttga tcataaaant gaaaattcag ctttttgaag ctctttgtgg cttcaagaag
 900
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaaaagcag tgagggtgata
 960
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccattctaca agcaccacctg
 1020
 gaaaaaggga ttctgatcat acagttttta gtaatcttcc ctganaaaca ctggctttct
 1080
 ctgga
 1085

<210> 3496
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 3496
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 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys

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Tyr His Pro Asp Lys Asn Pro Asp Glu Lys Phe Lys Leu Ile
   35                40                45
Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
   50                55                60
Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
   65                70                75                80
Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
   85                90                95
Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
  100                105                110
Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
  115                120                125
Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
  130                135                140
Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
  145                150                155                160
Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
  165                170                175
Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
  180                185                190
Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
  195                200                205
Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
  210                215                220
Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
  225                230                235                240
Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
  245                250                255
His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
  260                265                270
Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
  275                280                285
Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
  290                295                300
Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
  305                310                315                320
Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
  325                330                335
Leu

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<210> 3497

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 3497

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120
tttttagtat atccttctaa aaagt ttttcc tgagaatttt tagtttggcc tctcaagttt
180

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ccttatttta ccttttctta aattacctcc ctctctcctt agtgaaatga gccttccttc
240
agcatatcgca acttatecctt attgcttttt tcatacccaa ttttttgttt tatctctttc
300
agcccaactgg gtccctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga
360
acacctgctg tgtctcaagc tcctggaaac cagaggccca acaacacctg ttgcttttgt
420
tgggtctggt gttgcagctg ctctgcctc actgtgagga atgaagaaag aggggaaaaat
480
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540
aaccccatcg cagagggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc
600
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660
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720
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggctagttct
780
gattctcgag ttagagaggt galcaataga aatctgttgg atcccaatcc tcacatgtat
840aacttcagat atatacttta atgcacagag attcttttcc aagggttttg 900
aactctcaaa tttataagtc atttgttgaa agtactgctg gctctcttc tgaactctaa
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1020
catcagaaac tgagttcctg gagaactaca gtttagcatt cctcaggcta ctgtgaaac
1080
acaaccgtta tggcttttgt ctccattttt atcaagggtt tccatggtta agtttggaga
1140
aaataccaca caaaacaatg aattgccaaa ttgtttggtt tattcaagac tcattctact
1200
tgcaagcaaa gtgtatttgt agtcctatga acagtctctt cgtgtatctc cagagactgc
1260
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1320
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1380
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1440
ctatgtaaca atggtattca acattctata tactgtgttt agtacactaa ttttgagcc
1500
aatattttctg tacatgaaaa agagctattt atctctgttt gttggaaaat cctaattggg
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1620
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1638

<210> 3498
<211> 210
<212> PRT
<213> Homo sapiens

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<400> 3498

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 20           25           30
Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35           40           45
Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50           55           60
Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65           70           75
Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85           90           95
Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
100           105           110
Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
115           120           125
Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
130           135           140
Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
145           150           155
Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
165           170           175
Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
180           185           190
Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
195           200           205
Glu Ser
210

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<210> 3499

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3499

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gtctcgattc gtcttcacag ccttgacctg gcagaagctt cactcctgcc cccagcccc
120
tgccacgggc ggctccacag cctggcacag aggtattgtg attccanaa tggccaagnc
180
aacagactcn aacctcagga tngttctatt ttgccccaga agcaataatt ttttttctc
240
tctggaaaag cttttcaaga tagtgalgtt gatgtggggg cacggcggtc gcggggtaca
300
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360
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420
gtcctctcagt cccctccac tcttgctgtt cccctggac atggggcaca cgactcagga
480
ccaggccaga ggcaaaaggca aggagcaggc agtacgccag caagagtcce tgtccacggg
540

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agcccatctt cctgccgggc cctccgtccc gccggcgcct cctcccgcgc cgccccctaga
 600
 gcctctcccg ccggccaagc ctctctcccg ccanggtccg gggcgatgca cagactccgg
 660
 gaaggaaaca gagcagggga aaaggtcttc cggaggacgg cagtgcagaa gaggagggtg
 720
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 732

<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

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 Gly Ala Arg Arg Ser Pro Gly Thr Trp Arg Tyr Arg Gly His Ser Ser
 20 25 30
 Ala Ser Thr Gly Lys Gln Gly Ala Pro Gly Pro Asp Trp Ala Cys Ile
 35 40 45
 Phe His Val Val Leu Gln Pro Ser Arg His Gly Pro Glu Ala Thr Ala
 50 55 60
 Ala Pro Gln Ser Pro Pro Thr Pro Ala Val Pro Pro Gly His Gly Ala
 65 70 75 80
 His Asp Ser Gly Pro Gly Gln Arg Gln Arg Gln Gly Ala Gly Ser Thr
 85 90 95
 Pro Ala Arg Val Pro Val His Gly Ser Pro Ser Ser Cys Arg Ala Leu
 100 105 110
 Arg Pro Ala Gly Arg Ser Ser Arg Ala Ala Pro Arg Ala Ser Pro Ala
 115 120 125
 Gly Gln Ala Ser Ser Arg Pro Xaa Ser Gly Ala Met His Arg Leu Gly
 130 135 140
 Glu Gly Asn Arg Ala Gly Glu Lys Val Phe Arg Arg Thr Ala Val Gln
 145 150 155 160
 Lys Arg Arg Val Gly Gly Gly Thr
 165

<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120
 ccccttatag agaagatgga tgcctccttg tccatgcttg ctaattgcga gaagctttca
 180
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
 240
 ttatctttag gaagaaacaa cataaagaac ttaaatggac tggaggcagt aggggacaca
 300

ttagaagaac tgtggaatctc ctacaattttt attgagaagt tgaaagggat ccacataatg
 360
 aagaaattga agattctctta catgtctaat aacctggtaa aagactgggc tgagtttttg
 420
 aagctggcag aactgccatg cctcgaagac ctggtgtttg taggcaatcc cttggaagag
 480
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactga
 540
 aagctgggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct
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 660
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 691

<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

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 Glu Ile Lys Leu Tyr Ala Gln Ile Pro Pro Ile Glu Lys Met Asp Ala
 35 40 45
 Ser Leu Ser Met Leu Ala Asn Cys Glu Lys Leu Ser Leu Ser Thr Asn
 50 55 60
 Cys Ile Glu Lys Ile Ala Asn Leu Asn Gly Leu Lys Asn Leu Arg Ile
 65 70 75 80
 Leu Ser Leu Gly Arg Asn Asn Ile Lys Asn Leu Asn Gly Leu Glu Ala
 85 90 95
 Val Gly Asp Thr Leu Glu Glu Leu Trp Ile Ser Tyr Asn Phe Ile Glu
 100 105 110
 Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met
 115 120 125
 Ser Asn Asn Leu Val Lys Asp Trp Ala Glu Phe Val Lys Leu Ala Glu
 130 135 140
 Leu Pro Cys Leu Glu Asp Leu Val Phe Val Gly Asn Pro Leu Glu Glu
 145 150 155 160
 Lys His Ser Ala Glu Asn Asn Trp Ile Glu Glu Ala Thr Lys Arg Val
 165 170 175
 Pro Lys Leu Lys Lys Leu Asp Gly Thr Pro Val Ile Lys Gly Asp Glu
 180 185 190
 Glu Glu Asp Asn
 195

<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503

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 120
 aatgcccaga gattagcgga gaagctccga gcccagaaac gggaacaaga cacaagaag
 180
 gagcgggtgt ccacaaacgc tgttcagcgg agagtgcgaag aaatagtgcg gttcacacgg
 240
 cagctgcagc gaggccaccc caacgtgctt gctaaggcac tgacccgagg aattctccac
 300
 caggacaaga accttgtggt catcaataag cctacggctc tccctgtgca tggtgccct
 360
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 420
 aaggcagagc ccttgcatct gtgccaccgg ctggacaagg aaaccacagg tgtaatgggt
 480
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 540
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<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
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Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
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Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
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Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65				70				75						80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
			85					90					95		
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100					105						110		
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115				120					125				
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140
Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val		
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Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg		160
	165	170
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro		175
	180	185
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly		190
	195	200
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg		205
	210	215
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln		220
225	230	235
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala		240
	245	250
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val		255
	260	265
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp		270
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		285

<210> 3505

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 3505

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240
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720
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840

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 900
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 960
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 1320
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 1500
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<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

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 20 25 30
 Met Leu Leu Ala Trp Pro Leu Ala Leu Val Ala Ser Leu Gly Ser Ala
 35 40 45
 Glu Lys Glu Pro Glu Gln Pro Pro Ala Leu Trp Arg Lys Val Val Asp
 50 55 60
 Phe Leu Leu Lys Ala Ile Met Arg Thr Met Trp Phe Ala Gly Gly Phe
 65 70 75 80
 His Arg Val Ala Val Lys Gly Arg Gln Ala Leu Pro Thr Glu Ala Ala
 85 90 95
 Ile Leu Thr Leu Ala Pro His Ser Ser Tyr Phe Asp Ala Ile Pro Val
 100 105 110
 Thr Met Thr Met Ser Ser Ile Val Met Lys Thr Glu Ser Arg Asp Ile
 115 120 125
 Pro Ile Trp Gly Thr Leu Ile Gln Tyr Ile Arg Pro Val Phe Val Ser
 130 135 140
 Arg Ser Asp Gln Asp Ser Arg Arg Lys Thr Val Glu Glu Ile Lys Arg
 145 150 155 160
 Arg Ala Gln Ser Asn Gly Lys Trp Pro Gln Ile Met Ile Phe Pro Glu

165 170 175
 Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala
 180 185 190
 Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn
 195 200 205
 Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu
 210 215 220
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
 225 230 240
 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala
 245 250 255
 Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val
 260 265 270
 Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu
 275 280 285
 Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg
 290 295 300
 Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu
 305 310 315
 Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly
 325 330 335
 Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu
 340 345 350
 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
 355 360 365
 Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg
 370 375 380
 Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu
 385 390 395 400
 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
 405 410 415
 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
 420 425 430
 Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala
 435 440 445
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
 450 455 460
 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
 465 470 475 480
 Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro
 485 490 495
 Val Arg Lys Lys Leu Asp
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 <210> 3507
 <211> 885
 <212> DNA
 <213> Homo sapiens

 <400> 3507
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 120

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 240
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 360
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 420
 gacaagatta tagctgtgat ggcgaaagag cggagggggg ccagcggccc ttggtacaca
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 720
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 780
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 885

<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

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 20 25 30
 Cys Ile Ala Phe Leu Ile Ile Ile Gly Asp Gln Gln Asp Lys Ile Ile
 35 40 45
 Ala Val Met Ala Lys Glu Pro Glu Gly Ala Ser Gly Pro Trp Tyr Thr
 50 55 60
 Asp Arg Lys Phe Thr Ile Ser Leu Thr Ala Phe Leu Phe Ile Leu Pro
 65 70 75 80
 Leu Ser Ile Pro Arg Glu Ile Gly Phe Gln Lys Tyr Ala Ser Phe Leu
 85 90 95
 Ser Val Val Gly Thr Trp Tyr Val Thr Ala Ile Val Ile Ile Lys Tyr
 100 105 110
 Ile Trp Pro Asp Lys Glu Met Thr Pro Gly Asn Ile Leu Thr Arg Pro
 115 120 125
 Ala Ser Trp Met Ala Val Phe Asn Ala Met Pro Thr Ile Cys Phe Gly
 130 135 140
 Phe Gln Cys His Val Ser Ser Val Pro Val Phe Asn Ser Met Gln Gln
 145 150 155 160
 Pro Glu Val Lys Thr Trp Gly Gly Val Val Thr Ala Ala Met Val Ile

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                165                170                175
Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe
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Gly Ala Ala Val Asp Pro Asp
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<210> 3509
<211> 331
<212> DNA
<213> Homo sapiens

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<400> 3509
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120
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180
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240
aggcagcttg gtaaggcgcc catgggtgga gtgccctggg gtcagatgg tcaccaacgg
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331

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<210> 3510
<211> 110
<212> PRT
<213> Homo sapiens

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<400> 3510
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Val Ser Trp Thr Ala Leu Val His Val Lys Ala Glu Tyr Phe Arg Ser
20     25     30
Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr
35     40     45
Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
50     55     60
Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
65     70     75     80
Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp
85     90     95
Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala
100    105    110

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<210> 3511
<211> 3319
<212> DNA
<213> Homo sapiens

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<400> 3511
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60

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120
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240
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300
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360
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420
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca
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<210> 3512

<211> 462

<212> PRT

<213> Homo sapiens

<400> 3512

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Ser Arg Met Lys Arg Gly Gly Arg Asp Ser Asp Arg Asn Ser Ser Glu
 35           40           45
Glu Gly Thr Ala Glu Lys Ser Lys Lys Leu Arg Thr Thr Asn Glu His
 50           55           60
Ser Gln Thr Cys Asp Trp Gly Asn Leu Leu Gln Asp Ile Ile Leu Gln
 65           70           75           80
Val Phe Lys Tyr Leu Pro Leu Leu Asp Arg Ala His Ala Ser Gln Val
 85           90           95
Cys Arg Asn Trp Asn Gln Val Phe His Met Pro Asp Leu Trp Arg Cys
 100          105          110
Phe Glu Phe Glu Leu Asn Gln Pro Ala Thr Ser Tyr Leu Lys Ala Thr
 115          120          125
His Pro Glu Leu Ile Lys Gln Ile Ile Lys Arg His Ser Asn His Leu
 130          135          140
Gln Tyr Val Ser Phe Lys Val Asp Ser Ser Lys Glu Ser Ala Glu Ala
 145          150          155          160
Ala Cys Asp Ile Leu Ser Gln Leu Val Asn Cys Ser Leu Lys Thr Leu
 165          170          175
Gly Leu Ile Ser Thr Ala Arg Pro Ser Phe Met Asp Leu Pro Lys Ser
 180          185          190
His Phe Ile Ser Ala Leu Thr Val Phe Val Asn Ser Lys Ser Leu
 195          200          205
Ser Ser Leu Lys Ile Asp Asp Thr Pro Val Asp Asp Pro Ser Leu Lys
 210          215          220
Val Leu Val Ala Asn Asn Ser Asp Thr Leu Lys Leu Leu Lys Met Ser
 225          230          235          240
Ser Cys Pro His Val Ser Pro Ala Gly Ile Leu Cys Val Ala Asp Gln
 245          250          255
Cys His Gly Leu Arg Glu Leu Ala Leu Asn Tyr His Leu Leu Ser Asp
 260          265          270
Glu Leu Leu Leu Ala Leu Ser Ser Glu Lys His Val Arg Leu Glu His
 275          280          285
Leu Arg Ile Asp Val Val Ser Glu Asn Pro Gly Gln Thr His Phe His
 290          295          300
Thr Ile Gln Lys Ser Ser Trp Asp Ala Phe Ile Arg His Ser Pro Lys
 305          310          315          320
Val Asn Leu Val Met Tyr Phe Phe Leu Tyr Glu Glu Phe Asp Pro
 325          330          335
Phe Phe Arg Tyr Glu Ile Pro Ala Thr His Leu Tyr Phe Gly Arg Ser
 340          345          350
Val Ser Lys Asp Val Leu Gly Arg Val Gly Met Thr Cys Pro Arg Leu

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355	360	365
Val Glu Leu Val Val Cys	Ala Asn Gly Leu Arg	Pro Leu Asp Glu Glu
370	375	380
Leu Ile Arg Ile Ala Glu	Arg Cys Lys Asn Leu	Ser Ala Ile Gly Leu
385	390	395
Gly Glu Cys Glu Val Ser	Cys Ser Ala Phe Val	Glu Phe Val Lys Met
405	410	415
Cys Gly Gly Arg Leu Ser	Gln Leu Ser Ile Met	Glu Glu Val Leu Ile
420	425	430
Pro Asp Gln Lys Tyr Ser	Leu Glu Gln Ile His	Trp Glu Val Ser Lys
435	440	445
His Leu Gly Arg Val Trp	Phe Pro Asp Met Met	Pro Thr Trp
450	455	460

<210> 3513

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 3513

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 180
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 aaggccctca gccagagctc agtccctagt aaacacagga gaattcacac aggtgagaag
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 ccctatgagt gcagtgagtg tgggaagacc ttcagccacc gctccacact gatgaatcac
 1020

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<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

<400> 3520

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Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly
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Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
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225      230      235      240
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245      250      255
Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 3522

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 Gln His Ala Asp Gln Gly Pro Pro Gly Pro His Leu Asp Leu His Gln
 35 40 45
 Asp Leu Gln Ala Glu Pro Leu Arg Pro Ala Gly Leu Gly Gly Leu
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 Pro Ala Gly Pro Pro Gly Gly Gly His Gly Pro Ala Gly Arg Gly Gln
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 Pro Ser Arg His Arg Pro Gly Glu Pro Gln Gly Gly Arg Gly Gly Xaa
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<212> PRT

<213> Homo sapiens

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165          170          175
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195          200          205
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355          360          365
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<211> 1116

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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caccctcatc ccgtgactcg tggcatgcgc aggtgtctgga gcttggcagc cgcgcaggag
2640
catgtaggca ggtctctaga tgtaggtggc aagtggaca gctccatgtc cggaggccca
2700
gcactccgtc tgatgggagg agccgtggga gccacgctcc aggcctctgt acccctcttc
2760
atgcactgat ttggggaaaca tgactccctt ttactccctc accccacatc acttaattta
2820

ttctcgtttt tgttctggt tactgtgaat cccagaggag tctctccctg tgcccacatg
 2880
 aagctgcttt ttccggggcc accggggcggg agtgggggaag ggtgggagca cggaagatgg
 2940
 gggcctctgt acagttgtta ctgactctga tttetaagga gccataaacc accgtctcag
 3000
 agcaaaaaaa aaaaaaaaaa aaaaaa
 3026

<210> 3530
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 3530
 Met Ala Ser Val Ser Lys Cys Pro Ser Pro Met Pro Pro Ala Pro Trp
 1 5 10 15
 Thr Thr Ala Trp Arg Pro Ala Thr Leu Pro Pro Arg Ser Pro Ser His
 20 25 30
 Cys Xaa Ser Pro Val Ala Gly Val Ala His Arg Phe His Ser Thr Cys
 35 40 45
 Gly Lys Asn Val Thr Leu Glu Glu Asp Gly Thr Arg Ala Val Arg Ala
 50 55 60
 Ala Gly Tyr Ala His Gly Leu Val Phe Ser Thr Lys Glu Leu Arg Ala
 65 70 75 80
 Glu Glu Val Phe Glu Val Lys Val Glu Glu Leu Asp Glu Lys Trp Ala
 85 90 95
 Gly Ser Leu Arg Leu Gly Leu Thr Thr Leu Ala Pro Gly Glu Met Gly
 100 105 110
 Pro Gly Ala Gly Gly Gly Gly Pro Gly Leu Pro Pro Ser Leu Pro Glu
 115 120 125
 Leu Arg Thr Lys Thr Thr Trp Met Val Ser Ser Cys Glu Val Arg Arg
 130 135 140
 Asp Gly Gln Leu Gln Arg Met Asn Tyr Gly Arg Asn Leu Glu Arg Leu
 145 150 155 160
 Gly Val Lys Trp Leu Ala Pro Gly Thr Gly Glu Gly Leu Gly Val Glu
 165 170 175
 Val Ala Gly Arg Gly Gly Leu Asn Ile Val Arg Pro Cys Pro Thr Ser
 180 185 190
 Val Leu Gly Gly Glu Pro Cys Gly Cys Ser Ser Gly Gly Arg
 195 200 205

<210> 3531
 <211> 879
 <212> DNA
 <213> Homo sapiens

<400> 3531
 nggatactca gacttaggaa gggacgctct gaagatattt atagaattta cagccacgat
 60
 ggcaccgatt ctccccctga tgetgatgag gtggttatcg tcttcaacaa cttcaaaagc
 120
 aaaattatta aagtgaaggt tcagaagaag gcagatatgg tgaacgaaga cttgctgagt
 180

gatggaacga gtgagaatga atctggattt tgggattcct tcaaatgggg ctttacagga
 240
 cagaagactg aggaagtga gcaagataaa gatgacataa ttaatatattt ctccgttgca
 300
 tctgggtcatc tctacgaaag atttcttcgc ataatgatgc tatccgtgct gaagaatacc
 360
 aagactcctg tgaattctg gttcttgaag aattacttgt cccccacatt taaggagttt
 420
 ataccettaca tggcaaatga atacaatttc cagtatgagc ttgttcagta caaatggccc
 480
 cgggtgcttc atcaacaaac tgaaaaacag cgtatcatct ggggttacaa gatcctcttc
 540
 ctggatgtac ttttccact agttgttgac aagttcctgt ttgtggatgc tgatcagatt
 600
 gtacgaacag atctgaaaga gtaagagat tcaatttgg atgggtgctcc ttatgggtac
 660
 actcctttct gtgacagcgg aagagaaatg gacgggtaca ggtctggaa gtcagggtac
 720
 tgggccagtc atttagccgg gcgaaagtat catatcaggt actgaaaaga agcactccta
 780
 acactgttac ggggttttcc ttaaaattga ttttgtgtgg ttaaaattgt gaataggtaa
 840
 tacattggta tgggtgaaaa ataaaaatga taaaaaata
 879

<210> 3532

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3532

Xaa Ile Leu Arg Leu Arg Lys Gly Arg Ser Glu Asp Ile Tyr Arg Ile
 1 5 10 15
 Tyr Ser His Asp Gly Thr Asp Ser Pro Asp Ala Asp Glu Val Val
 20 25 30
 Ile Val Leu Asn Asn Phe Lys Ser Lys Ile Ile Lys Val Lys Val Gln
 35 40 45
 Lys Lys Ala Asp Met Val Asn Glu Asp Leu Leu Ser Asp Gly Thr Ser
 50 55 60
 Glu Asn Glu Ser Gly Phe Trp Asp Ser Phe Lys Trp Gly Phe Thr Gly
 65 70 75 80
 Gln Lys Thr Glu Glu Val Lys Gln Asp Lys Asp Asp Ile Ile Asn Ile
 85 90 95
 Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile Met
 100 105 110
 Met Leu Ser Val Leu Lys Asn Thr Lys Thr Pro Val Lys Phe Trp Phe
 115 120 125
 Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Phe Ile Pro Tyr Met
 130 135 140
 Ala Asn Glu Tyr Asn Phe Gln Tyr Glu Leu Val Gln Tyr Lys Trp Pro
 145 150 155 160
 Arg Trp Leu His Gln Gln Thr Glu Lys Gln Arg Ile Ile Trp Gly Tyr
 165 170 175
 Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Val Val Asp Lys Phe

	180		185		190
Leu Phe Val Asp Ala Asp Gln Ile Val Arg Thr Asp Leu Lys Glu Leu					
195		200		205	
Arg Asp Phe Asn Leu Asp Gly Ala Pro Tyr Gly Tyr Thr Pro Phe Cys					
210		215		220	
Asp Ser Arg Arg Glu Met Asp Gly Tyr Arg Phe Trp Lys Ser Gly Tyr					
225		230		235	240
Trp Ala Ser His Leu Ala Gly Arg Lys Tyr His Ile Arg Tyr					
	245		250		

<210> 3533

<211> 1151

<212> DNA

<213> Homo sapiens

<400> 3533

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 cgaatcctaa ccgcattctc ctcttttagct ggactgaacc caaacatgaa tgtcaacacg
 120
 atggacatga ccggtggctt gtcggtgaag gaccatccc agtcccagtc acgcctcccc
 180
 cagtggaagc accccaactc catggataac ttgcccagtg ccgcttcccc cctggagcag
 240
 aaccctagca agcatggtgc taccctgga ggtctaagca ttgggcctcc aggttaagtc
 300
 tccattgatg actcctatgg ccggtacgat ttaatccaga acagtgaagc accagccagt
 360
 cctcccgtag ctgttcccca tagctggtea cgtgccaaat ctgacagtga taaaatctca
 420
 aatggctcta gcatcaactg gccccagaa ttccatccgg gagttccatg gaaaggactg
 480
 cagaatattg accctgagaa tgaccctgac gtcactcctg gcagtgtccc cactgggctc
 540
 accatcaaca ccaccatcca ggatgtcaac cgctacctcc tcaagagtgg agggctctcc
 600
 ccgccatcat ctccagaatgc cacgctgctt tcttcgagtg cctggccact cagtgcctcc
 660
 ggctacagta gctctttcag cagcattgca tccgcacctg gtgttgacag taaactgtca
 720
 gacatcaaat cgacgtggto ctctggccct acctccaca cgcaagcctc tctgtctcat
 780
 gaactatgga aggtgcccag aaacagtact gcaccacga ggccacctcc agggtaaac
 840
 aatcccaagc cctcctccac ctgggggtgc agccccctcg gctggaccag ctctactacc
 900
 tcgggttctg cctggagcac cgacacctca ggaagaacca gcagctggct cgttcttcga
 960
 aacctcactc cccaggtgca atatggtgcc cctgcatcac tgagcatgat ccagggaggg
 1020
 ttcccgcttg gccccaatg cagatgaggg tctctggtgg ggcaggatag ttgggggttc
 1080
 ttggtcaggg tccataagtg acgctgcatg ggaggagatg agcaagtgcc aggatgggtc
 1140

ccagcagcgg c
1151

<210> 3534
<211> 313
<212> PRT
<213> Homo sapiens

<400> 3534
Met Asn Val Asn Ser Met Asp Met Thr Gly Gly Leu Ser Val Lys Asp
1 5 10 15
Pro Ser Gln Ser Gln Ser Arg Leu Pro Gln Trp Thr His Pro Asn Ser
20 25 30
Met Asp Asn Leu Pro Ser Ala Ala Ser Pro Leu Glu Gln Asn Pro Ser
35 40 45
Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys
50 55 60
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
65 70 75 80
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
85 90 95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
100 105 110
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
115 120 125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
130 135 140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
145 150 155 160
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
165 170 175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
180 185 190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
195 200 205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
210 215 220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
225 230 235 240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
245 250 255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
260 265 270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
275 280 285
Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly
290 295 300
Gly Phe Pro Leu Gly Pro Gln Cys Arg
305 310

<210> 3535
<211> 723
<212> DNA
<213> Homo sapiens


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<400> 3535
tccggacaaa gctctcagta tcttgggtgc cattgtttct tctactcagc cgtgtttttt
60
ctactgagac agacaaaccc tcagcccagg acagcagagg ccgtgggagt tcaggccaac
120
cggcagacct gctacagggt ctctctgctg gtgaccaccc accccacaac cactcaagaa
180
gcctcatcaa aacattgttg gagaaaactg ggtgcccacg gaggagaaac ggaatgcaag
240
gagattgcaa tctgtgcttt gaaccagatg cactattact aatagctgga ggaatttttg
300
aagatcagct tagagaagaa gtggtccaga gagtttctct tctccttctc tattacatta
360
ttcatcagga agagatctgt tcttcaaagc tcaacatgag taataaagag tataaatttt
420
acctacacag cctactgagc ctcaggcagg atgaagattc ctctttcctt tcacagaatg
480
agacagaaga tatcttggct ttaccaggc agtactttga cacttctcaa agccagtgtg
540
tggaaaccaa aacgctgcag aaaaaatctg gaatagtgag cagtgaagggt gctaatagaaa
600
gtacgcttcc tcagttggca gccatgatca ttactttgtc cctccagggt gtttgtctgg
660
gacaaggaaa cttgccttcc ccagactact ttacagaata tattttcagt tccttgaatc
720
gta
723

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<210> 3536

<211> 163

<212> PRT

<213> Homo sapiens

```

<400> 3536
Met Gln Gly Asp Cys Asn Leu Cys Phe Glu Pro Asp Ala Leu Leu Leu
1 5 10 15
Ile Ala Gly Gly Asn Phe Glu Asp Gln Leu Arg Glu Glu Val Val Gln
20 25 30
Arg Val Ser Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile
35 40 45
Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu
50 55 60
His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser
65 70 75 80
Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp
85 90 95
Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser
100 105 110
Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu
115 120 125
Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln
130 135 140
Gly Asn Leu Pro Ser Pro Asp Tyr Phe Thr Glu Tyr Ile Phe Ser Ser

```

145
Leu Asn Arg

150

155

160

<210> 3537
<211> 714
<212> DNA
<213> Homo sapiens

<400> 3537
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tatttacatt cacgcccgat aaaaccccta tgtgccccgg cgccggggca aggcctgtgta
120
cataaggcca agagtaagtg cgtgaatgca ctaagacaa agtcaggaca cgagcttcac
180
atgacaggcc ccgctgtggg gaccagccag ccctggggag gggcacgcca cgccacacac
240
acactcacca ctgtacagcc tgggactccc attgcatatt cacaggcccc gccgggcagg
300
gcacctcaag gctggggggag gggcaggggc agggaggagc cgtgggggtgt ccctgggtgg
360
gtggagaggg cagcatgtga gaggcaaatg tgcaccaaca ctgggcgtga gacgtgagca
420
gcctcagggtg tacggcatga gatgtgtgtg gttgggggtg gtctgcgtga cccgggaggg
480
gggtgtgtgt gagatgagca cagcaggcat gcgtggcacg tgctcgtgtg gtgtgcgcgt
540
gcctgaatcc aggggctacc ccctgtccgg ctgtggccct cggtcctgca ggggtggaag
600
aagggtcctt cagacgtgcc cctaccacag aggcacagaa atgtttgcat aaggctccagc
660
tcaggcagga gctctggggc cctggcccag gccacgtgtg tgcgtgcatg gccca
714

<210> 3538
<211> 154
<212> PRT
<213> Homo sapiens

<400> 3538
Met His Ala His Thr Gly Pro Gly Pro Gly Pro Gln Ser Ser Cys Leu
1 5 10 15
Ser Trp Thr Leu Cys Lys His Phe Cys Ala Cys Trp Val Gly Ala Arg
20 25 30
Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
35 40 45
Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg
50 55 60
Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
65 70 75 80
His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
85 90 95
Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

```

                100                105                110
Leu Pro Ser Pro Pro Thr Gln Gly His Pro Thr Ala Pro Pro Cys Pro
    115                120                125
Cys Pro Ser Pro Ser Leu Glu Val Pro Cys Pro Ala Gly Pro Val Asn
    130                135                140
Met Gln Trp Glu Ser Gln Ala Val Gln Trp
    145                150

```

```

<210> 3539
<211> 818
<212> DNA
<213> Homo sapiens

```

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<400> 3539
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60
ggcaatgggg gtgcctgtgg tccagctgc tcgggaggct gaggcggaat tgcttgagcg
120
cgggggcggg aggttgcagt gagccgagat cgcgcaggta cgctccagtc tgggcgacaa
180
gagcgaaact cgatatcaaa aaaaaaaaaa acgtcctgat ccagagcct cttcacgcgt
240
ccctaccac agcacttcag agaagcaggt cttaaatcag tgtgtctaga tgcagctgct
300
gactgtcacc cctaccccg cctctctccca gtctgcggag gccagctcac cccattgcc
360
cagaatcaga cgaccctcgg ttcttcaga gccaaagctgg gcaacttccc ctggcaagcc
420
ttcaccagta tccacggccg tggggcgggg gccctgctgg gggacagatg gatcctcact
480
gctgcccaca ccgtctaccc caaggacagt gtttctctca ggaagaacca gagtgtgaat
540
gtgttcttgg gccacacagc catagatgag atgctgaaac tggggaacca cctgtcccac
600
cgtgtcgttg tgcaccccca ctaccgtcag aatgagtcctc ataatcttag cggggacatc
660
gccctcctgg agctgcagca cagcatcccc ctggggcccca acgtcctccc ggtctgtctg
720
cccgataatg agaccctcta ccgcagcggc ttgttgggct acgtcagtgg gtttggcatg
780
gagatgggct ggctaactac tgagctgaag tactcgag
818

```

```

<210> 3540
<211> 180
<212> PRT
<213> Homo sapiens

```

```

<400> 3540
Ser Val Cys Leu Asp Ala Ala Ala Asp Cys His Pro Tyr Pro Ala Ser
1          5          10          15
Leu Pro Val Cys Gly Arg Pro Val Thr Pro Ile Ala Gln Asn Gln Thr
20          25          30
Thr Leu Gly Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala

```

```

      35              40              45
Phe Thr Ser Ile His Gly Arg Gly Gly Ala Leu Leu Gly Asp Arg
  50              55              60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
  65              70              75              80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85              90              95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100              105              110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115              120              125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130              135              140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
      145              150              155              160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165              170              175
Leu Lys Tyr Ser
      180

```

<210> 3541

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3541

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tctctccgac ggcgtgcagg tggccatttc aagaccgta ctaggtagat ggtcaattag
  60
agttcccagg gtttgaagcc tgtaactget gccgccgctc aagccctcca gagcattgct
  120
acggctgctg ccttgttact actacctcca aatacgttct tgctggtagt ggcggcagca
  180
ggaccaatta cctctttttt gctctccctc gagaagctcc agatggcgctc ttccgtgggc
  240
aacgtggcgc acagcacaga accaacgaaa cgtatgcttt ccttccaagg gttagctgag
  300
ttggcacatc gagaatatca ggcaggagat tttgaggcag ctgagagaca ctgcattgag
  360
ctctggagac aagagccaga caatactggt gtgcttttat tactttcatc tatacacttc
  420
cagtgctcaa ggctggacag atctgctcac ttagcactc tggaattaa acagaacccc
  480
cttctggcag aagcttattc gaatttgggg aatgtgtaca aggaagagg gcagttgcag
  540
gaggcaattg agcattatcg acatgcattg cgtctcaaac ctgatttcat cgatggttat
  600
attaacgctg cagccgcctt ggtagcagcg ggtgacatgg aaggggcagt acaagcttac
  660
gtctctgcac tccagcctgg gtgacaaagt gaggccctgt ctcaaaaaaa aaaaaaaaaa
  720
aa
  722

```

<210> 3542

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3542

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Met Ala Ser Ser Val Gly Asn Val Ala Asp Ser Thr Glu Pro Thr Lys
 1             5             10             15
Arg Met Leu Ser Phe Gln Gly Leu Ala Glu Leu Ala His Arg Glu Tyr
 20             25             30
Gln Ala Gly Asp Phe Glu Ala Ala Glu Arg His Cys Met Gln Leu Trp
 35             40             45
Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Ser Ser Ile
 50             55             60
His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
 65             70             75             80
Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
 85             90             95
Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
100             105             110
Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
115             120             125
Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
130             135             140
Ala Tyr Val Ser Ala Leu Gln Pro Gly
145             150

```

<210> 3543

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 3543

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nttcagaggtt ttgagttaag agctcacat ttaatatata aattagtatg tcagaatctc
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cagcctaataa aagtatttta tgaatgctgt ccttaagacc gagtaacagc attgtgttca
120
gtttgggtgt tgctcaggat gtgtaatagt ttctcttcag ccataagcca cgctcggtag
180
atattaattg agtggagaga tcttgcaact ctccagatta tgcatttggt gtttgcgtc
240
tgatttggtg cacttggaag atcactgttt tgtgttctac gaccacaattg agaggattat
300
gtggagctaa gttttaccaa tcaggatcat ccttccttgt gggtagcag cgagttataa
360
gattgcaaaa tgggtctccg gattcaacttt gttgttgacc cacatggttg gtgctgcattg
420
ggtttgattg tctttgtttg gttatacaat attgttttaa ttcccaaaat tgtcctcttt
480
cttcactatg aagaaggaca tattccaggc atattaataa taatattcta tggcattttcc
540
atattctgtc tggttgcctt agtgagggcc tcataactg atccaggaag actccctgag
600
aacccaaga tccacatgg agaaaggagg ttctgggaat tatgtaacaa gtgtaatttg
660

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atgagaccaa agcgttccca tcaactgtagc cgctgcggcc actgtgtgag gagaatggat
 720
 catcactgtc catggattaa caatttgttt ggtgaagata atcattggct cttttctgcag
 780
 ttgtgtttct acactgaact tcttacttgc tacgcactga tgtttttctt ctgccactat
 840
 tactattttc ttccactaaa aaagcgtaat ttggacctct ttgttttttag acatgaattg
 900
 gccataatga gactagcagc ctttatgggc attactatgt tagttggaat aactggagctc
 960
 ttttacactc aactaattgg catcatcaca ctttgcagtc tcatcctact caagtgtggc
 1020
 tctgtatcca acaacagtct tggagatctc atgaagattt ctgaaacttt tgctctgagg
 1080
 ataccttctt ttgtggttat gtgccctgaa aactccagcc tccgtgtctt caattcagtg
 1140
 aaactactac tctgcttgga ttccctctt atacaatggt ctaccaagtg actgcaaaca
 1200
 gaaatc
 1206

<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

Met Gly Leu Arg Ile His Phe Val Val Asp Pro His Gly Trp Cys Cys
 1 5 10 15
 Met Gly Leu Ile Val Phe Val Trp Leu Tyr Asn Ile Val Leu Ile Pro
 20 25 30
 Lys Ile Val Leu Phe Pro His Tyr Glu Glu Gly His Ile Pro Gly Ile
 35 40 45
 Leu Ile Ile Ile Phe Tyr Gly Ile Ser Ile Phe Cys Leu Val Ala Leu
 50 55 60
 Val Arg Ala Ser Ile Thr Asp Pro Gly Arg Leu Pro Glu Asn Pro Lys
 65 70 75 80
 Ile Pro His Gly Glu Arg Glu Phe Trp Glu Leu Cys Asn Lys Cys Asn
 85 90 95
 Leu Met Arg Pro Lys Arg Ser His His Cys Ser Arg Cys Gly His Cys
 100 105 110
 Val Arg Arg Met Asp His His Cys Pro Trp Ile Asn Asn Cys Val Gly
 115 120 125
 Glu Asp Asn His Trp Leu Phe Leu Gln Leu Cys Phe Tyr Thr Glu Leu
 130 135 140
 Leu Thr Cys Tyr Ala Leu Met Phe Ser Phe Cys His Tyr Tyr Tyr Phe
 145 150 155 160
 Leu Pro Leu Lys Lys Arg Asn Leu Asp Leu Phe Val Phe Arg His Glu
 165 170 175
 Leu Ala Ile Met Arg Leu Ala Ala Phe Met Gly Ile Thr Met Leu Val
 180 185 190
 Gly Ile Thr Gly Leu Phe Tyr Thr Gln Leu Ile Gly Ile Ile Thr Pro
 195 200 205
 Cys Ser Leu Ile Leu Leu Lys Cys Gly Ser Val Ser Asn Asn Ser Leu

210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
225	230	235
Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
	245	250
Val Lys Leu Leu Leu Cys Leu Asp Ser Pro Leu Ile Gln Trp Ser Thr		255
	260	265
		270

Lys

<210> 3545

<211> 3657

<212> DNA

<213> Homo sapiens

<400> 3545

cctaggctgt tggagactga gtgagtgaaat gtgtggagag tactaggett ggcacaggcc
 60
 agagcaggtg ctcaggaggt ctggcccatc atctggctcc ggctgacctc tgccctcacc
 120
 ctggcagacc ctggctgggc atccatcagc aggggtgtgc tgggtgtgtga cgagtgtctg
 180
 agcgtgcacc ggagcctggg acgccacatc tccattgtca agcaccttcg ccacagcgcc
 240
 tggcctccca cgtgtgtgca gatggtgcac acgcttgcca gcaacggggc caactccatc
 300
 tggggagcact cctgtctgga ccccgacaaa gtgcagagcg gccggcgtaa agccaacccc
 360
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<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
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Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
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Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
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Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
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Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
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Asn Phe Phe His	Pro Glu Lys Gly Thr	Pro Leu His Val Ala Ala
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Lys Ala Gly Gln Thr	Leu Gln Ala Glu Leu Leu Val	Val Tyr Gly Ala
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Asp Pro Gly Ser Pro	Asp Val Asn Gly Arg Thr	Pro Ile Asp Tyr Ala
	210	215
Arg Gln Ala Gly His	His Glu Leu Ala Glu Arg Leu	Val Glu Cys Gln
	225	230
Tyr Glu Leu Thr Asp	Arg Leu Ala Phe Tyr Leu Cys Gly	Arg Lys Pro
	245	250
Asp His Lys Asn Gly	His Tyr Ile Ile Pro Gln Met Ala	Asp Arg Ser
	260	265
Arg Gln Lys Cys Met	Ser Gln Ser Leu Asp Leu Ser	Glu Leu Ala Lys
	275	280
Ala Ala Lys Lys Lys	Leu Gln Ala Leu Ser Asn Arg	Leu Phe Glu Glu
	290	295
Leu Ala Met Asp Val	Tyr Asp Glu Val Asp Arg Arg	Glu Asn Asp Ala
	305	310
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Ala Val Pro Phe Leu	Pro Val Asn Pro Glu Tyr Ser Ala	Thr Arg Asn
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Gln Gly Arg Gln Lys	Leu Ala Arg Phe Asn Ala Arg	Glu Phe Ala Thr
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Ser Asp Leu Asp Asp	Gln His Asp Tyr Asp Ser Val Ala	Ser Asp Glu
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Asp Thr Asp Gln Glu	Pro Leu Arg Ser Thr Gly Ala Thr	Arg Ser Asn
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Arg Ala Arg Ser Met	Asp Ser Ser Asp Leu Ser Asp	Gly Ala Val Thr
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Leu Gln Glu Tyr Leu	Glu Leu Lys Lys Ala Leu Ala Thr	Ser Glu Ala
	450	455
Lys Val Gln Gln Leu	Met Lys Val Asn Ser Ser Leu Ser	Asp Glu Leu
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<211> 1039

<212> DNA

<213> Homo sapiens

<400> 3547

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<211> 346

<212> PRT

<213> Homo sapiens

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Pro Phe Gly Thr Ala Leu Val Asn Leu Glu Lys Ala Pro Leu Lys Val
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<210> 3549

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 3549

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<211> 500

<212> PRT

<213> Homo sapiens

<400> 3550

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 Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
 210 215 220
 Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
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 Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
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 Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
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 Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
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 Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
 305 310 315 320
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 340 345 350
 Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
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 Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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	405	410
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	420	425
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg		430
	435	440
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser		445
	450	455
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser		460
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<211> 545

<212> DNA

<213> Homo sapiens

<400> 3551

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 taaccccact gtttatcgac aggttctcag gaatcagata gctcgcagtc ggccaagaag
 360
 gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaacctt gcgtcagagg
 420
 ctggagggaac tgaagaagct gtgtctccga gaagctgtaa gcctttccta gctcatcccc
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<210> 3552

<211> 55

<212> PRT

<213> Homo sapiens

<400> 3552

Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser
 1 5 10 15
 Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

20 25 30
 Glu Glu Thr Leu Arg Gln Arg Leu Glu Glu Leu Lys Lys Leu Cys Leu
 35 40 45
 Arg Glu Ala Val Ser Leu Ser
 50 55

<210> 3553
 <211> 1412
 <212> DNA
 <213> Homo sapiens

<400> 3553
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 120
 gatgaccage tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggcctgcct
 180
 cccagactc cggatgagag tcttggtcct tctgatctgg agctgaggga gttgaaggag
 240
 agcttgacagg acaccagacc tgtgggtgtg ttggtggact gctgtaagac tctagaccag
 300
 gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agacctgag gagtactggt
 360
 gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg
 420
 gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat
 480
 actctgtttg aatttgtatt taaaggattt gatgctctgc aatataagga acatctggat
 540
 tatgagatta tccagtctct aaatcctgaa tttacaaaag cagtgatcat agtgaatgta
 600
 ttctgagaac acaggcagac tattcagtat atacatctcg cagatgctgt gaagctgggc
 660
 caggctgaac tagttgtgat tgatgaagct gccgccatcc cctccccctt ggtgaagagc
 720
 ctacttgccc cctaccttgt ttcatggcca tccaccatca atggctatga gggcactggc
 780
 cgggtactgt cctcaagct aattcagcag ctccgtcaac agagcgccca gaggcaggtc
 840
 agcaccactg ctgagaataa gaccacgacg acagccagat tggcatcage gcggacactg
 900
 catgagggtt cctccaggga gtcaatccga tacgcccttg gggatgcagt ggagaagtgg
 960
 ctgaatgact tgctgtgcct ggattgcctc aacatcactc ggatagtctc aggcctgccc
 1020
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 1080
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 1140
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 1200
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 1260

gaacagaggc gtccttggg cagtgatttg gggaaccact gaggcacacg gaattagtgg
 1320
 cctaataact gcattgtggg agttttgaaa ctgtggagtc ctggtctgga accaaggggg
 1380
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 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

Tyr	Thr	Val	Thr	Met	Asp	Val	His	Ser	Arg	Tyr	Arg	Thr	Glu	Ala	His
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Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala
		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35					40					45				
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
	65				70					75				80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85						90				95		
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
			100						105				110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
		115					120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135						140			
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
	145				150					155				160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
		165							170					175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185				190			
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
		195				200						205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
	225				230					235				240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245					250						255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
		275					280					285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290					295					300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
	305				310					315				320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val

	325		330		335
Ser Gly Cys	Pro Leu Pro Glu Ala Cys	Glu Leu Tyr Tyr Val Asn Arg			
	340	345	350		
Asp Thr Leu Phe	Cys Tyr His Lys Ala Ser	Glu Val Phe Leu Gln Arg			
	355	360	365		
Leu Met Ala Leu	Tyr Val Ala Ser His Tyr Lys	Asn Ser Pro Asn Asp			
	370	375	380		
Leu Gln Met Leu	Ser Asp Ala Pro Ser His His	Leu Phe Cys Leu Leu			
	385	390	395	400	
Pro Pro Val Pro	Pro Thr Gln Asn Ala Leu	Pro Lys Val Leu Ala Val			
	405	410	415		
Ile Gln Val					

<210> 3555
 <211> 1038
 <212> DNA
 <213> Homo sapiens

<400> 3555
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 120
 atgaaccagg cggtgcagag gcgcttcgcc aagggggtgc agtacaacat gaagatagtg
 180
 atccggggag acaggaacac gggcaagaca gcgctgtggc acgcctgca gggccggccg
 240
 ttcggtgagg agtatatccc cacacaggag atccaggta ccagcatcca ctggagctac
 300
 aagaccacgg atgacatcgt gaaggttgaa gtctgggatg tagtagacaa aggaaaatgc
 360
 aaaaagcgag gcgacggctt aaagatggag aacgaccccc aggaggcgga gtctgaaatg
 420
 gccctggatg ctgagttcct ggacgtgtac aagaactgca acggggtggg catgatgttc
 480
 gacattacca agcagtgga cttcaattac attctcggg agcttccaaa agtgcacacc
 540
 cagctgccag tgtgcgtgct ggggaactac cgggacatgg gcgagcaccg agtcacnnc
 600
 tgccggacgn acgtgcgtga cttcatcgac aacctggaca gacctccagg ttctctctac
 660
 ttccgctatg ctgagtcctc catgaagaac agcttcgggc taaagtacct tcataagttc
 720
 ttcaatatcc catttttgca gcttcagagg gagacgctgt tgcggcagct ggagacgaac
 780
 cagctggaca tggacgccac gctggaggag ctgtcgggtc agcaggagac ggaggaccag
 840
 aactacggca tcttcttgga gatgatggag gctcgcagcc gtggccatgc gtccccactg
 900
 gcggccaacg ggcagagccc atccccgggc tcccagtcac cagtgggtgc tgcaggcgct
 960
 gtgtccacgg ggagctccag ccccggcaca gccacgccg cccacagct gccctcaat
 1020

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1038

<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

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Met Phe Ser Ala Leu Lys Lys Leu Val Gly Ser Asp Gln Ala Pro Gly
  1           5           10           15
Arg Asp Lys Asn Ile Pro Ala Gly Leu Gln Ser Met Asn Gln Ala Leu
  20           25           30
Gln Arg Arg Phe Ala Lys Gly Val Gln Tyr Asn Met Lys Ile Val Ile
  35           40           45
Arg Gly Asp Arg Asn Thr Gly Lys Thr Ala Leu Trp His Arg Leu Gln
  50           55           60
Gly Arg Pro Phe Val Glu Glu Tyr Ile Pro Thr Gln Glu Ile Gln Val
  65           70           75           80
Thr Ser Ile His Trp Ser Tyr Lys Thr Thr Asp Asp Ile Val Lys Val
  85           90           95
Glu Val Trp Asp Val Val Asp Lys Gly Lys Cys Lys Lys Arg Gly Asp
  100          105          110
Gly Leu Lys Met Glu Asn Asp Pro Gln Glu Ala Glu Ser Glu Met Ala
  115          120          125
Leu Asp Ala Glu Phe Leu Asp Val Tyr Lys Asn Cys Asn Gly Val Val
  130          135          140
Met Met Phe Asp Ile Thr Lys Gln Trp Thr Phe Asn Tyr Ile Leu Arg
  145          150          155          160
Glu Leu Pro Lys Val Pro Thr His Val Pro Val Cys Val Leu Gly Asn
  165          170          175
Tyr Arg Asp Met Gly Glu His Arg Val Ile Xaa Cys Arg Thr Xaa Val
  180          185          190
Arg Asp Phe Ile Asp Asn Leu Asp Arg Pro Pro Gly Ser Ser Tyr Phe
  195          200          205
Arg Tyr Ala Glu Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu
  210          215          220
His Lys Phe Phe Asn Ile Pro Phe Leu Gln Leu Gln Arg Glu Thr Leu
  225          230          235          240
Leu Arg Gln Leu Glu Thr Asn Gln Leu Asp Met Asp Ala Thr Leu Glu
  245          250          255
Glu Leu Ser Val Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe
  260          265          270
Leu Glu Met Met Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala
  275          280          285
Ala Asn Gly Gln Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro
  290          295          300
Ala Gly Ala Val Ser Thr Gly Ser Ser Ser Pro Gly Thr Ala Gln Pro
  305          310          315          320
Ala Pro Gln Leu Pro Leu Asn Gly Cys Pro Thr Ile Leu
  325          330

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<210> 3557

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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 120
 agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgagat cgccatcgac
 180
 ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caagggggaag
 240
 atcatcagcg gcagcagcgg cagcctgctg tcttcaggat ctggtgccag gagacactgc
 300
 attctactcc caggttctca ggaatcagat agctcgcagt cgccaagaa ggacatgctg
 360
 gctgccttga agtccaggca ggaagctctg gaggaaccc tgcgtcagag gctggaggaa
 420
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 480
 ctggat
 486

<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

Ser Val Thr Arg Thr Phe Gly His Ser Gly Ile Ala Val His Thr
 1 5 10 15
 Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala Ile
 20 25 30
 Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys Ile
 35 40 45
 His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu Thr
 50 55 60
 Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly Lys
 65 70 75 80
 Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gly Ala
 85 90 95
 Arg Arg His Cys Ile Leu Leu Pro Gly Ser Gln Glu Ser Asp Ser Ser
 100 105 110
 Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu
 115 120 125
 Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu Glu Leu Lys Lys Leu
 130 135 140
 Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu Pro Val Glu Tyr Pro
 145 150 155 160
 Leu Asp

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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 120
 gccggcgaag caggggctat cgagcgggtc ctgagggtt acagcgacaa gcatagggct
 180
 acttttcaaat ttgaatcaac agatgaagat aaaagaaaga aactctgtga aggcataatt
 240
 aaagtcctta taaaggacat cccaacaaca tgtcaagtgt cctgccttga agtactccgc
 300
 attctctcca gagacaaaaa gggttttagtt cctgtgacaa ctaaggaaaa tatgcagata
 360
 ctgctgcgac tagccaagct aaatgagtta gatgattctt tggagaaagt atcagagttc
 420
 ccagttattg tggagtcatt aaaatgtctg tgtaatatag tgttcaacag tcagatggca
 480
 cagcagctca gcctggaact taactctgct gcaaagctct gtaacctctt gagaagtgc
 540
 aaggaccgga aatttatcaa tgacattaag tgctttgact tgcgcttgct cttccttctg
 600
 tcacttttgc acaccgacat cagggtcaca ttgcgctatg agctccaggg actaccgctg
 660
 ctaacgcaga tcg
 673

<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

Met Asp Glu Glu Arg Ala Leu Tyr Ile Val Arg Ala Gly Glu Ala Gly
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 Ala Ile Glu Arg Val Leu Arg Asp Tyr Ser Asp Lys His Arg Ala Thr
 20 25 30
 Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu
 35 40 45
 Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val
 50 55 60
 Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu
 65 70 75 80
 Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala
 85 90 95
 Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro
 100 105 110
 Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser
 115 120 125
 Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu
 130 135 140
 Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

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145                150                155                160
Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
                165                170                175
Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu
                180                185                190
Thr Gln Ile
                195

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<210> 3561
<211> 523
<212> DNA
<213> Homo sapiens

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<400> 3561
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ggctcacaga gctgactcag aaggggccatt gtcacacact ggtaagagct gattctgagg
120
ggagggcatg agacgcctat tgcagagctg ctcaccagaa ggtcacagga atttagaaga
180
gaagctccta cctgcccccg atcatgcacg tggccactga ggatgccaga cgagggtgatg
240
ctgggtctcat agagaatgta ccgaaggac tgtccatttc cccattgac tggcaggttc
300
tccatgttga tgggcttttc agacttgatt ggctgcgtac agaagagatg gaggggtggg
360
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420
aagcggaggt ttggtgggtg ttttctactt tgactttcca ttgcactaaa catacaactc
480
tccagggtga cggggaagag gagtggggca aagggggtgtg cac
523

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<210> 3562
<211> 106
<212> PRT
<213> Homo sapiens

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<400> 3562
Met His Val Ala Thr Glu Asp Ala Arg Arg Gly Asp Ala Gly Leu Ile
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Glu Asn Val Pro Glu Gly Leu Ser Ile Ser Pro Ile Asp Trp Gln Val
                20                25                30
Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu
                35                40                45
Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
50                55                60
Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
65                70                75                80
Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp
                85                90                95
Gly Glu Glu Glu Trp Gly Lys Gly Val Cys
                100                105

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<210> 3563
 <211> 359
 <212> DNA
 <213> Homo sapiens

<400> 3563
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 cgaagccagg ggcgcgcggc gatgtgagcc atgagcgcga cgtggacgct gtgccgggag
 120
 cccctgccgc cgtcgacggg gccccacgtg ggcgcggggc tggacgcgga cgacgcacga
 180
 gtgttcgcct tcgtgctctg cctgctcgtg gtgctgggtg tttgatgggt gcgtgcgtg
 240
 cgcattctgc tcgaccccta cagccgcatg cccgcctcgt cctggaccga ccacaaggag
 300
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 359

<210> 3564
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3564
 Met Ser Ala Thr Trp Thr Leu Ser Pro Glu Pro Leu Pro Pro Ser Thr
 1 5 10 15
 Gly Pro Pro Val Gly Ala Gly Leu Asp Ala Glu Gln Arg Thr Val Phe
 20 25 30
 Ala Phe Val Leu Cys Leu Leu Val Val Leu Val Leu Leu Met Val Arg
 35 40 45
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser
 50 55 60
 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala
 65 70 75 80
 Leu Val

<210> 3565
 <211> 580
 <212> DNA
 <213> Homo sapiens

<400> 3565
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 cgtgagcagg cacaggagac ctcccgccgc gccggccggg cgaccccgca ggaagtagga
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 180
 cgctacgccc gcgcgggagcc gggcagagcg gccaaagtgt cgcagcccaa gaaaagaaa
 240
 cttgagtcgg ggggcggcgc cgaaggaggg gagggaaactg aagaggaaga tggcgcggag
 300

cgggaggcgg ccctggagcg accccggacg actaagcggg aacgggacca gctgtactac
 360
 gagtgctact cggacgtttc ggtccacgag gagatgatcg cggaccgcgt ccgaccacgat
 420
 gcctaccgct gggtttccct tcggaactgg gcagcactgc gaggcaagac ggtactggac
 480
 ttggggcggg gcaccggcat tctgagcatc ttctgtgcc caggccggggc ccgggcgctg
 540
 tacgcggtag agggcagcgc catctggcaa caggcccggg
 580

<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

Thr	Arg	Arg	Gly	Trp	Glu	Lys	Gly	Cys	Gln	Asp	Thr	Arg	Arg	Ala	Ile
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Gln	Asn	Ser	Ser	Arg	Glu	Gln	Ala	Gln	Glu	Thr	Phe	Arg	Ala	Ala	Gly
		20					25						30		
Arg	Ala	Thr	Pro	Gln	Glu	Val	Gly	Arg	Thr	Ser	Ala	His	Phe	Lys	Ser
		35				40						45			
Gln	Lys	Pro	Pro	Phe	Pro	Gly	Ala	Arg	Ala	Val	Pro	Arg	Tyr	Ala	Arg
	50				55					60					
Arg	Glu	Pro	Gly	Arg	Ala	Ala	Lys	Met	Ser	Gln	Pro	Lys	Lys	Arg	Lys
	65			70				75						80	
Leu	Glu	Ser	Gly	Gly	Ala	Glu	Gly	Gly	Glu	Gly	Thr	Glu	Glu	Glu	
		85					90					95			
Asp	Gly	Ala	Glu	Arg	Glu	Ala	Ala	Leu	Glu	Arg	Pro	Arg	Thr	Thr	Lys
		100					105						110		
Arg	Glu	Arg	Asp	Gln	Leu	Tyr	Tyr	Glu	Cys	Tyr	Ser	Asp	Val	Ser	Val
		115				120						125			
His	Glu	Glu	Met	Ile	Ala	Asp	Arg	Val	Arg	Thr	Asp	Ala	Tyr	Arg	Trp
	130					135					140				
Val	Ser	Leu	Arg	Asn	Trp	Ala	Ala	Leu	Arg	Gly	Lys	Thr	Val	Leu	Asp
	145			150					155					160	
Val	Gly	Ala	Gly	Thr	Gly	Ile	Leu	Ser	Ile	Phe	Cys	Ala	Gln	Ala	Gly
		165						170					175		
Ala	Arg	Arg	Val	Tyr	Ala	Val	Glu	Ala	Ser	Ala	Ile	Trp	Gln	Gln	Ala
		180					185						190		

Arg

<210> 3567

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 3567

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 120

ataagcaggt ggaagagatc ctccgtcttg agaaagaaat cgaggacctg cagcgcatga
180
aggagcagca ggagctgtcg ctgaccgagg ctctccctgca gaagctgcag gagcggcggg
240
accaggagct ccgagggtcg gaggaggaga tttttgcacc tgaaaaaggc agccatagtt
300
ttccagaagc aactcagagg tcagattgct cgggaggttt acagacaatt gctggcagag
360
aaaagggagc aagaagaaaa gaagaaacag gaagaggag aaagaagaa acgggaggaa
420
gaagaaagag aaagagagag agagcgaaga gaagccgagc tccgcgccca gcaggaagaa
480
gaaacgagga agcagcaaga actcgaagcc ttgcagaaga gccagaagga agctgaactg
540
acccgtgaac tggagaaaca gaaggaaaat aagcaggttg aagagatcct ccgtctggag
600
aaagaatatc aggaacctgca gcgcataag gagcagcagg agctgtcgtc gaccgaggct
660
tccctgcaga agctgcagga gcggcgggac caggagctcc gcaggctgga ggaggaagcg
720
tgcaaggcgg cccaggagtt cctcagatcc ctcaatttcg acgagatcga cagtggtgtc
780
cgggaatatc agcgggtccct gtccggggga agcgaatttt ccagcgagct ggctgagagc
840
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<212> PRT

<213> Homo sapiens

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 <212> FRT
 <213> Homo sapiens

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<400> 3572
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His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
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Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
35      40      45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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50		55		60
Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro				
65	70	75	80	
Ala Leu Leu Pro Gln Val Ser Thr Gln Val Ala Gln Ala Ala Leu Arg				
	85	90	95	
Thr Ala Leu Pro Arg Ala Ser Arg Leu Leu Leu Gly Gly Cys				
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<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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120
ccctgcctgc tcccacaaagc ccagccttca gcccccccaa tcaatccag ccacacacac
180
agtcccatctt ttcccatcca ttctggtaet tgtgtgttca ataaacctgg tggacacaca
240
gcttcacata ccacacacact cacagccaca aaccccagaa gtcatgcaca tgccgacgca
300
ccttggtgga catgcacaca caaccacact tgtgtgcaaa gtggcagaca caccacaca
360
tgcatagaag caagtctctg gacctcttct gcattcccaca gaggggggctc cctgtgtgtg
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600
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720
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1020
gccgagagaa gagtccctgt caccgccagc aaactcagca cctgaggcgg gggctcggcg
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1140
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1200

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1236

<210> 3574

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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Asp	His	Pro	Pro	Cys	Leu	Leu	Pro	Lys	Ala	Gln	Pro	Ser	Ala	Pro	Pro
		20					25					30			
Ile	Asn	Pro	Ser	His	Thr	His	Ser	Pro	Ile	Phe	Ser	Ile	His	Ser	Gly
	35				40						45				
Thr	Cys	Val	Phe	Asn	Lys	Pro	Gly	Gly	His	Thr	Ala	Ser	His	Thr	His
	50				55					60					
Thr	Leu	Thr	Ala	Thr	Asn	Pro	Arg	Ser	His	Ala	His	Ala	Asp	Ala	Pro
65				70					75					80	
Cys	Gly	Thr	Cys	Thr	His	Asn	His	Thr	Cys	Val	Gln	Ser	Gly	Arg	His
			85					90					95		
Thr	His	Thr	Cys	Ile	Glu	Ala	Ser	Leu	Trp	Thr	Pro	Ser	Ala	Ser	His
	100						105						110		
Arg	Gly	Gly	Ser	Pro	Ala	Val	Phe	Asp	Trp	Phe	Phe	Glu	Ala	Ala	Cys
	115				120					125					
Pro	Ala	Ser	Val	Gln	Glu	Asp	Pro	Pro	Ile	Leu	Arg	Gln	Phe	Pro	Pro
	130				135					140					
Asp	Phe	Arg	Asp	Gln	Glu	Ala	Met	Gln	Met	Val	Pro	Lys	Phe	Cys	Phe
145				150						155				160	
Pro	Phe	Asp	Val	Glu	Arg	Gly	Pro	Pro	Ser	Pro	Ala	Val	Gln	His	Phe
			165					170						175	
Thr	Phe	Ala	Leu	Thr	Asp	Leu	Ala	Gly	Asn	Arg	Arg	Phe	Gly	Phe	Cys
	180						185					190			
Arg	Leu	Arg	Ala	Gly	Thr	Gln	Ser	Cys	Leu	Cys	Ile	Leu	Ser	His	Leu
	195					200					205				
Pro	Trp	Phe	Glu	Val	Phe	Tyr	Lys	Leu	Leu	Asn	Thr	Val	Gly	Asp	Leu
	210				215						220				
Leu	Ala	Gln	Asp	Gln	Val	Thr	Glu	Ala	Glu	Glu	Leu	Leu	Gln	Asn	Leu
225				230					235					240	
Phe	Gln	Gln	Ser	Leu	Ser	Gly	Pro	Gln	Ala	Ser	Val	Gly	Leu	Glu	Leu
			245					250					255		
Gly	Ser	Gly	Val	Thr	Val	Ser	Ser	Gly	Gln	Gly	Ile	Pro	Pro	Pro	Thr
	260							265				270			
Arg	Gly	Asn	Ser	Lys	Pro	Leu	Ser	Cys	Phe	Val	Ala	Pro	Asp	Ser	Gly
	275					280					285				
Arg	Leu	Pro	Ser	Ile	Pro	Glu	Asn	Arg	Asn	Leu	Thr	Glu	Leu	Val	Val
290				295						300					
Ala	Val	Thr	Asp	Glu	Asn	Ile	Val	Gly	Leu	Phe	Ala	Ala	Leu	Leu	Ala
305				310						315				320	
Glu	Arg	Arg	Val	Leu	Leu	Thr	Ala	Ser	Lys	Leu	Ser	Thr	Leu	Arg	Arg
			325					330					335		
Gly	Pro	Pro	Gly	Arg	Gly	Gly	Ser	Arg	Ala	Trp	Leu	Arg	Pro	Gly	Gly
			340					345				350			
Arg	Asp	Lys	Gly	Ala	Asp	Ser	Leu	Leu							

355

360

<210> 3575
 <211> 769
 <212> DNA
 <213> Homo sapiens

<400> 3575
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 120
 cagtcaaagg tgctggaggt gtgtctgtat agaagtaagt cgtcccacca acagttttctt
 180
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 240
 cactagaagg caccatgtaa cttgctggat ttggagtggt acttcttctt ctgggagcag
 300
 gagaagtatg tggagtaatc ttgggggaat gaagagggga agaccacga gacaacgaca
 360
 ttctgaaga ggaatgtaaa atgtttctta atggagcaat aattggtttt agagaacaag
 420
 tctggaaaat aaaatgcaaa cattcatttg gaagaaacat catctttggg atcgttaagt
 480
 caaagatgaa ggaataaatt ttatcttgtt ttgtttaga aaaagctctg attaaagcaa
 540
 atgtaaagtt tcttttttca aatgtactta ttccaataa tgttagcaga tttactgcaa
 600
 gaatagtctc ctccatatca aggtttacat caggaaaattt aatagcaaga gtgacacaaa
 660
 atttaataaa ttaatggaag agtgggaagt aacagaattg tggctcttta taaaattatg
 720
 ccttttataa aagtttttct tttataaaag gcataattcc tttttatt
 769

<210> 3576
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3576
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 Ser Thr Phe Glu Lys Arg Asn Phe Thr Phe Ala Leu Ile Arg Ala Phe
 20 25 30
 Ser Thr Thr Lys Gln Asp Lys Ile Ile Ser Phe Ile Phe Ala Leu Thr
 35 40 45
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe
 50 55 60
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe
 65 70 75 80
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His
 85 90 95
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

agtgetaage tacttgtttt ctacttgag cccgggtagg ctgtgttggc cctcacttgg
 1080
 gattctcage agttacatga aagttgtgct gataatctct tctctgttac caatttttagt
 1140
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 1200
 agttgcttat gtttattccc tgtca
 1225

<210> 3578
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 3578
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 1 5 10 15
 Ile Ile Leu Asp Ser Leu Leu Phe Phe Tyr Asp Cys Ser Asn Asn Pro
 20 25 30
 Ile Ser Glu His Phe His Pro Thr Val Ile Gly Glu Ser Met Tyr Gly
 35 40 45
 Asp Phe Glu Glu Ala Phe Asp His Leu Gln Asn Arg Leu Ile Ala Thr
 50 55 60
 Lys Asn Pro Glu Glu Ile Arg Gly Gly Gly Leu Lys Tyr Ser Asn
 65 70 75 80
 Leu Leu Val Arg Asp Phe Arg Pro Thr Asp Gln Glu Glu Ile Lys Thr
 85 90 95
 Leu Glu Arg Tyr Met Cys Ser Arg Phe Phe Ile Asp Phe Pro Asp Ile
 100 105 110
 Leu Glu Gln Gln Arg Lys Leu Glu Thr Tyr Leu Gln Asn His Phe Ala
 115 120 125
 Glu Glu Glu Arg Ser Lys Tyr Asp Tyr Leu Met Ile Leu Arg Arg Val
 130 135 140
 Val Asn Glu Ser Thr Val Cys Leu Met Gly His Glu Arg Arg Gln Thr
 145 150 155 160
 Leu Asn Leu Ile Ser Leu Leu Ala Leu Arg Val Leu Gly Gly Thr Lys
 165 170 175
 His His Pro Pro Val Pro Pro Arg Ser Pro Val Thr Thr Ser Gly Pro
 180 185 190
 Leu Ser Gln
 195

<210> 3579
 <211> 755
 <212> DNA
 <213> Homo sapiens

<400> 3579
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 120
 cagatactcc agccaccgcg aaggttcag gaaaggacaa tgtcctgcga gaaaatcagg
 180


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aggcctccac ttcctgggcc acttgagaag ttcctgggca tgtcactaca tgttggttga
240
ctcagccatt tctcatgctg ttttgtttct tgcggtggcc acttaacccc aaagaatgaa
300
gggaggatcc acagtgaag tgctgagtt tctctatgag accagatgct gtcgaaacca
360
aacatctttt cctttgctct atgggaacat tttagggttt gttttgcaca gctggtttcc
420
agactagaag attaacaagt ttgggtccac cctaagaat cagtggctgt cttttaaggt
480
gaggagtgtg ggcttaactg aggtcctttg agggagctat aaaggagaaa caacctggga
540
catcccagtt ttcctattcc tccactgtta atatctcacc taaaataatt catgagttta
600
aatggtaaat atatgcttta agctctacct taaacttgt atgttattca ggcctctctt
660
attaagatac tgggtctctg gatacccaag gaaatgttgg ctttttattc ttatgtggtt
720
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755

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<210> 3580
<211> 121
<212> PRT
<213> Homo sapiens

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<400> 3580
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20 25 30
Glu Thr Lys Gln His Glu Lys Trp Leu Ser Gln Pro Thr Cys Ser Asp
35 40 45
Met Pro Arg Asn Phe Ser Ser Gly Pro Gly Ser Gly Gly Leu Leu Ile
50 55 60
Phe Ser Gln Asp Ile Val Leu Ser Trp Asn Leu Ala Gly Gly Trp Ser
65 70 75 80
Ile Cys Ile Trp Ser Ile Ala Arg Leu Ser His Leu Ser Ser Asp Gln
85 90 95
Lys Cys Ile Ser Lys Ile Ile Thr Ser Thr Lys Thr Ile Ile Asp Cys
100 105 110
Glu Gln Thr Phe Ser Val Thr Ser Arg
115 120

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<210> 3581
<211> 2132
<212> DNA
<213> Homo sapiens

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<400> 3581
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tgcacgaccg ccagcgcgctg ctccactggg acctgcgcgg ccccgggggg ggccccgcgc
120

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ggcgctgct ggacttgta cggcgggcg agcagcgct gtacgaggcg cgggaccgcg
180
gccgctgga gctctcgcc cggccttcg acgacggcaa cttctcgctg ctcatccgcg
240
cggtaggagga gacggacgag gggctgtaca cctgcaacct gcaccatcac tactgccacc
300
ctacgagag cctggcgtc cgcctggagg tcaccgacgg cccccggcc acccccgct
360
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420
gcgtagaacg cgggcacgtg tggaccgacc ggcacgtgga ggaggtcaa cagggtgtgc
480
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gcgtagatgc ctttgagcgc ggtgacttct cactgcgtat cgagcgctg gaggtgcgg
660
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720
tcctccacct gacggtcgcc gaacccacg cggagccgccc cccccggggc tctcgggca
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960
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1020
acttggcgga gttcgctgtg cctgcagggg accagatgct ttacaggagt gagacatcc
1080
agctagatta caaaaacaac atcctgaagg agagggcgga gctggccac agccccctgc
1140
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1380
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1680
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1740

caggcaccat ctgttctccc cagggacctg ctgacttgaa tgccagccct tgcctctctg
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 2132

<210> 3582

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3582

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Pro	Arg	Thr	Gly	Cys	Thr	Thr	Ala	Ser	Ala	Cys	Ser	Thr	Gly	Thr	Cys
			20					25				30			
Ala	Ala	Pro	Gly	Val	Ala	Pro	Arg	Gly	Ala	Cys	Trp	Thr	Cys	Thr	Arg
		35				40					45				
Arg	Ala	Ser	Ser	Ala	Cys	Thr	Arg	Arg	Gly	Thr	Ala	Ala	Ala	Trp	Ser
	50					55					60				
Ser	Arg	Pro	Arg	Pro	Ser	Thr	Thr	Ala	Thr	Ser	Arg	Cys	Ser	Ser	Ala
	65				70				75					80	
Arg	Trp	Arg	Arg	Arg	Thr	Arg	Gly	Cys	Thr	Pro	Ala	Thr	Cys	Thr	Ile
			85					90					95		
Thr	Thr	Ala	Thr	Ser	Thr	Arg	Ala	Trp	Pro	Ser	Ala	Trp	Arg	Ser	Pro
		100						105					110		
Thr	Ala	Pro	Arg	Pro	Pro	Pro	Pro	Thr	Gly	Thr	Ala	Arg	Arg	Arg	Cys
		115					120					125			
Trp	Arg	Trp	Arg	Ala	Ala	His	Pro	Arg	Phe						
	130					135									

<210> 3583

<211> 1554

<212> DNA

<213> Homo sapiens

<400> 3583

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 120
 ctccgaaatg ggatcgcgga agactttaaag ggccaggctg attttttttt cctactcgag
 180
 gtctctgagg ctgtgggtgc tacagggtca ccacgagctt ggcttacttg tctcatcctt
 240

cccttgccctg gtatcatctt ctcagttctc ccaaaagcca tglcccgcc cttgctcatc
 300
 accttcaccc cagccactga ccccgcgac ctctggaagg atgggcagca gcagccacag
 360
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 420
 attggggatg agagcagcgc tcctgactcc cagagatctc agactgaacc tgccagagaa
 480
 agaaaagaaa agaaaagaag aataatgaag gcaccagcag cagaagcagt ggcagaaggaa
 540
 gcatcaggaa gacatggaca agggagatcc cttgaggctg aggataagat gactcaccgg
 600
 atactgaggg cagcccagga gggggacctg ccagaactta ggagactgct ggaaccgcat
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 720
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 aaccggctct ctaactccctc cctccagtac tgcagaact gtgacacca ctccaagat
 960
 tccaaccacc gcacatccac tgctcacctg ctgtcactgt cgagggtcc ttagcctccc
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 aacctccac ttgggttgcc catctccagc ccggggttca aactgctgct gagggggggc
 1080
 tgggagccag gaatggggct gggaccccg ggtgaggggc gtgccaatcc catcccaact
 1140
 gtccctcaaga gggaccagga aggactaggc tacagatcag caccacagcc ccgagtgcga
 1200
 catttcccag cttgggatac ccgagctgtg gctgggaggg agagaccccc tcgggtggcc
 1260
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 1320
 ctaaggactt acatgaacct cgagtcttga ctttgytaaa gtctgacctt agtctgtctg
 1380
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 1440
 cagatgcaga tcctgaagtt tttggtaaat aggtctgttc ttctgtgagag acgggctgag
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 1554

<210> 3584

<211> 356

<212> FRT

<213> Homo sapiens

<400> 3584

Met Ser Arg Pro Leu Leu Ile Thr Phe Thr Pro Ala Thr Asp Pro Ser
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 Asp Leu Trp Lys Asp Gly Gln Gln Gln Pro Gln Pro Glu Lys Pro Glu

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Ser Thr Leu Asp Gly Ala Ala Ala Arg Ala Phe Tyr Glu Ala Leu Ile
   35                40                45
Gly Asp Glu Ser Ser Ala Pro Asp Ser Gln Arg Ser Gln Thr Glu Pro
   50                55                60
Ala Arg Glu Arg Lys Arg Lys Lys Arg Arg Ile Met Lys Ala Pro Ala
65                70                75                80
Ala Glu Ala Val Ala Glu Gly Ala Ser Gly Arg His Gly Gln Gly Arg
   85                90                95
Ser Leu Glu Ala Glu Asp Lys Met Thr His Arg Ile Leu Arg Ala Ala
  100                105                110
Gln Glu Gly Asp Leu Pro Glu Leu Arg Arg Leu Leu Glu Pro His Glu
  115                120                125
Ala Gly Gly Ala Gly Gly Asn Ile Asn Ala Arg Asp Ala Phe Trp Trp
  130                135                140
Thr Pro Leu Met Cys Ala Ala Arg Ala Gly Gln Gly Ala Ala Val Ser
145                150                155                160
Tyr Leu Leu Gly Arg Gly Ala Ala Trp Val Gly Val Cys Glu Leu Ser
  165                170                175
Gly Arg Asp Ala Ala Gln Leu Ala Glu Glu Ala Gly Phe Pro Glu Val
  180                185                190
Ala Arg Met Val Arg Glu Ser His Gly Glu Thr Arg Ser Pro Glu Asn
  195                200                205
Arg Ser Pro Thr Pro Ser Leu Gln Tyr Cys Glu Asn Cys Asp Thr His
  210                215                220
Phe Gln Asp Ser Asn His Arg Thr Ser Thr Ala His Leu Leu Ser Leu
225                230                235                240
Ser Gln Gly Pro Gln Pro Pro Asn Leu Pro Leu Gly Val Pro Ile Ser
  245                250                255
Ser Pro Gly Phe Lys Leu Leu Leu Arg Gly Gly Trp Glu Pro Gly Met
  260                265                270
Gly Leu Gly Pro Arg Gly Glu Gly Arg Ala Asn Pro Ile Pro Thr Val
  275                280                285
Leu Lys Arg Asp Gln Glu Gly Leu Gly Tyr Arg Ser Ala Pro Gln Pro
  290                295                300
Arg Val Thr His Phe Pro Ala Trp Asp Thr Arg Ala Val Ala Gly Arg
305                310                315                320
Glu Arg Pro Pro Arg Val Ala Thr Leu Ser Trp Arg Glu Glu Arg Arg
  325                330                335
Arg Glu Glu Lys Asp Arg Ala Trp Glu Arg Asp Leu Arg Thr Tyr Met
  340                345                350
Asn Leu Glu Phe
355

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<210> 3585

<211> 2782

<212> DNA

<213> Homo sapiens

<400> 3585

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120

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gtggcgggg ccccttgggc cgtcgccacc actgtagtca tgtaccacc gccgcgccc
180 ccgcctcatc gggacttcat ctccgtgacg ctgagctttg gcgagagcta tgacaacagc
240 aagagtgtggc ggccgagctc gtgctggagg aaatggaagc aactgtcgag attgcagcgg
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<210> 3586

<211> 663

<212> PRT

<213> Homo sapiens

<400> 3586

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 35 40 45
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 50 55 60
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 65 70 75 80
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 Arg Phe Thr Arg Val Pro Ser Gly Gly Tyr Ser Ser Ile Asn Asn Val
 595 600 605
 Gln Asp Pro Gln Lys Pro Glu Pro Arg Asp Lys Met Glu Ser Phe Phe
 610 615 620
 Leu Gly Glu Thr Leu Lys Tyr Leu Phe Leu Leu Phe Ser Asp Asp Pro
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<210> 3587

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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 Glu Asp Val Gln Glu Glu Thr Gln Leu Asp Leu Ser Gly Asp Ser Val
 35 40 45
 Lys Thr Ile Ala Lys Leu Trp Asp Ser Lys Met Phe Ala Glu Ile Met
 50 55 60
 Met Lys Ile Glu Glu Tyr Ile Ser Lys Gln Ala Lys Ala Ser Glu Val
 65 70 75 80
 Met Gly Pro Val Glu Ala Ala Pro Glu Tyr Arg Val Ile Val Asp Ala
 85 90 95
 Asn Asn Leu Thr Val Glu Ile Glu Asn Glu Leu Asn Ile Ile His Lys
 100 105 110
 Phe Ile Arg Asp Lys Tyr Ser Lys Arg Phe Pro Glu Leu Glu Ser Leu
 115 120 125
 Val Pro Asn Ala Leu Asp Tyr Ile Arg Thr Val Lys Glu Leu Gly Asn
 130 135 140
 Ser Leu Asp Lys Cys Lys Asn Asn Glu Asn Leu Gln Gln Ile Leu Thr
 145 150 155 160
 Asn Ala Thr Ile Met Val Val Ser Val Thr Ala Ser Thr Thr Gln Gly
 165 170 175
 Gln Gln Leu Ser Glu Glu Glu Leu Glu Arg Leu Glu Glu Ala Cys Asp

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180      185      190
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195      200      205
Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly
210      215      220
Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Gly Leu Thr Asn
225      230      235      240
Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg
245      250      255
Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly
260      265      270
Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
275      280      285
Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
290      295      300
Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu
305      310      315      320
Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro
325      330      335
Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys
340      345      350
Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu
355      360      365
Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu
370      375      380
Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly
385      390      395      400
Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr
405      410      415
Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser
420      425      430
Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr
435      440      445
Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn
450      455      460
Pro Gln Ala Ala Glu Lys Lys Val Ala Glu Ala Asn Gln Lys Tyr Phe
465      470      475      480
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<210> 3589

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3589

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180

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<210> 3590

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3590

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Asp Pro Met Ser Pro Phe His Leu Ser Ser Val Ile Leu Cys Arg Pro
35 40 45
Ser Ala Trp Pro Cys Leu Arg Ser Ser Ser Pro Ala Ala Gln Gly
50 55 60
Ser Phe Val Ser Ala Gln Glu Gly Pro Tyr Asn Pro Ser Trp Leu Trp
65 70 75 80
Pro Gly Pro Cys Phe Val Ser Glu Leu Gly Gly Pro Ile Pro Lys His
85 90 95
Trp Leu Gly Asn Ser Tyr Pro Ile Cys Cys Leu Gly Ser Ala Trp Phe
100 105 110
Phe Thr His Ile Ser
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<210> 3591

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3591

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120
cgatggctct catcaggggt gattcctaata gaaaaatac gaaatattgg aatctcagct
180

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<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
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65				70					75					80	
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Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
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<210> 3593
 <211> 1005
 <212> DNA
 <213> Homo sapiens

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<210> 3594
 <211> 282
 <212> PRT
 <213> Homo sapiens

<400> 3594
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 35 40 45
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

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Glu	Ile	Glu	Arg	Ser	Leu	Tyr	Ser	Asp	His	Glu	Leu	Arg	Ala	Leu	Asp
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Glu	Asn	Gln	Arg	Leu	Ala	Lys	Lys	Lys	Ala	Asp	Leu	His	Asp	Glu	Glu
			100					105				110			
Asp	Glu	Gln	Asp	Ile	Leu	Leu	Ala	Gln	Asp	Leu	Glu	Asp	Met	Trp	Glu
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Gln	Lys	Phe	Leu	Gln	Phe	Lys	Leu	Gly	Ala	Arg	Ile	Thr	Glu	Ala	Asp
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Glu	Lys	Asn	Asp	Arg	Thr	Ser	Leu	Asn	Arg	Lys	Leu	Asp	Arg	Asn	Leu
			145					150				155			
Val	Leu	Leu	Val	Arg	Glu	Lys	Phe	Gly	Asp	Gln	Asp	Val	Trp	Ile	Leu
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Pro	Gln	Ala	Glu	Trp	Gln	Pro	Gly	Glu	Thr	Leu	Arg	Gly	Thr	Ala	Glu
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Arg	Thr	Leu	Ala	Thr	Leu	Ser	Glu	Asn	Asn	Met	Glu	Ala	Lys	Phe	Leu
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Gly	Asn	Ala	Pro	Cys	Gly	His	Tyr	Thr	Phe	Lys	Phe	Pro	Gln	Ala	Met
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Arg	Thr	Glu	Ser	Asn	Leu	Gly	Ala	Lys	Val	Phe	Phe	Phe	Lys	Ala	Leu
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Leu	Leu	Thr	Gly	Asp	Phe	Ser	Gln	Ala	Gly	Asn	Lys	Gly	His	His	Val
			245					250				255			
Trp	Val	Thr	Lys	Asp	Glu	Leu	Gly	Asp	Tyr	Leu	Lys	Pro	Lys	Tyr	Leu
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<210> 3595

<211> 1903

<212> DNA

<213> Homo sapiens

<400> 3595

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540

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<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

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Gln Met Leu	Ala Gln Tyr	Ile Glu Ser Phe Thr	Gln Gly Ser Ile Glu
	35	40	45
Ala His Lys	Arg Gly Ser	Arg Phe Trp	Ile Gln Asp Lys Gly Pro Ile
	50	55	60
Val Glu Ser	Tyr Ile Gly	Phe Ile Glu Ser Tyr	Arg Asp Pro Phe Gly
65	70	75	80
Ser Arg Gly	Glu Phe Glu	Gly Phe Val Ala Val	Val Asn Lys Ala Met
	85	90	95
Ser Ala Lys	Phe Glu Arg	Leu Val Ala Ser	Ala Glu Gln Leu Lys
	100	105	110
Glu Leu Pro	Trp Pro Pro	Thr Phe Glu Lys	Asp Lys Phe Leu Thr Pro
	115	120	125
Asp Phe Thr	Ser Leu Asp	Val Leu Thr Phe	Ala Gly Ser Gly Ile Pro
	130	135	140
Ala Gly Ile	Asn Ile Pro	Asn Tyr Asp Asp	Leu Arg Gln Thr Glu Gly
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Phe Lys Asn	Val Ser Leu	Gly Asn Val Leu	Ala Val Ala Tyr Ala Thr
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Gln Arg Glu	Lys Leu Thr	Phe Leu Glu Glu	Asp Asp Lys Asp Leu Tyr
	180	185	190
Ile Leu Trp	Lys Gly Pro	Ser Phe Asp Val	Gln Val Gly Leu His Glu
	195	200	205
Leu Leu Gly	His Gly Ser	Gly Lys Leu Phe	Val Gln Asp Glu Lys Gly
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Ala Phe Asn	Phe Asp Gln	Glu Thr Val Ile	Asn Pro Glu Thr Gly Glu
225	230	235	240
Gln Ile Gln	Ser Trp Tyr	Arg Ser Gly Glu	Thr Trp Asp Ser Lys Phe
	245	250	255
Ser Thr Ile	Ala Ser Ser	Tyr Glu Glu Cys	Arg Ala Glu Ser Val Gly
	260	265	270
Leu Tyr Leu	Cys Leu His	Pro Gln Val Leu	Glu Ile Phe Gly Phe Glu
	275	280	285
Gly Ala Asp	Ala Glu Asp	Val Ile Tyr Val	Asn Trp Leu Asn Met Val
	290	295	300
Arg Ala Gly	Leu Leu Ala	Leu Glu Phe Tyr	Thr Thr Pro Glu Ala Phe Asn
305	310	315	320
Trp Arg Gln	Ala His Met	Gln Ala Arg Phe	Val Ile Leu Arg Val Leu
	325	330	335
Leu Glu Ala	Gly Glu Gly	Leu Val Thr	Ile Thr Pro Thr Thr Gly Ser
	340	345	350
Asp Gly Arg	Pro Asp Ala	Arg Val Arg	Leu Asp Arg Ser Lys Ile Arg
	355	360	365
Ser Val Gly	Lys Pro Ala	Leu Glu Arg	Phe Leu Arg Arg Leu Gln Val
	370	375	380
Leu Lys Ser	Thr Gly Asp	Val Ala Gly	Gly Arg Ala Leu Tyr Glu Gly
385	390	395	400
Tyr Ala Thr	Val Thr Asp	Ala Pro Pro	Glu Cys Phe Leu Thr Leu Arg
	405	410	415
Asp Thr Val	Leu Leu Arg	Lys Glu Ser	Arg Lys Leu Ile Val Gln Pro
	420	425	430
Asn Thr Arg	Leu Glu Gly	Asn Gly Ser	Asp Val Gln Leu Leu Glu Tyr

435		440		445
Glu Ala Ser Ala Ala Gly	Leu Ile Arg Ser Phe	Ser Glu Arg Phe Pro		
450	455	460		
Glu Asp Gly Pro Glu Leu Glu Glu Ile Leu Thr Gln Leu Ala Thr Ala				
465	470	475	480	
Asp Ala Arg Phe Trp Lys Gly Pro Ser Glu Ala Pro Ser Gly Gln Ala				
485	490	495		

<210> 3597

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 3597

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<210> 3598

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3598

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      20           25           30
Asp Tyr Asn Lys Asp Asp Met Ser Tyr Arg Arg Ile Ser Ala Val Glu
      35           40           45
Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg
      50           55           60
Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys
65           70           75           80
His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala
      85           90           95
Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu
      100          105          110
Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile
      115          120          125
Lys Ser Gln Leu Lys Glu Gln Asp Gln Lys Trp Gln Asp Asp Leu Ala
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<210> 3599

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3599

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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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		20						25					30		
Met	Val	Glu	Val	Arg	Ser	Trp	Ser	Gly	Ser	Leu	Val	Gly	Trp	Leu	Ala
		35				40						45			
Pro	Arg	Pro	Leu	Ser	Val	Pro	Ile	Glu	His	Leu	Leu	Gly	Ala	Lys	Asn
		50				55				60					
Cys	Cys	Arg	His	Gly	Gly	Gln	Trp	Val	Arg	Arg	Ala	Val	Pro	Ala	Val
		65			70				75					80	
Leu	Ser	Leu	Val	Gly	Ala	Ser	Ser	Leu	His	His	Ala	Val	Tyr	Leu	Phe
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Leu Leu

<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 3601

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 2963

<210> 3602
 <211> 299
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Gln Gln Asn Ser Ala Ala Asp Leu Ser Met Leu Val Leu Glu Ser
 50 55 60
 Leu Glu Lys Ala Glu Val Glu Val Ala Asp Glu Leu Leu Glu Asn Leu
 65 70 75 80
 Ala Lys Val Phe Ser Leu Met Asp Pro Asn Ser Pro Glu Arg Val Thr
 85 90 95
 Phe Val Ser Arg Ala Leu Lys Trp Ser Ser Gly Gly Ser Gly Lys Leu
 100 105 110
 Gly His Pro Arg Leu His Gln Leu Leu Ala Leu Thr Leu Trp Lys Glu
 115 120 125
 Gln Asn Tyr Cys Glu Ser Arg Tyr His Phe Leu His Ser Ala Asp Gly
 130 135 140
 Glu Gly Cys Ala Asn Met Leu Val Glu Tyr Ser Thr Ser Arg Gly Phe
 145 150 155 160
 Arg Ser Glu Val Asp Met Phe Val Ala Gln Ala Val Leu Gln Phe Leu
 165 170 175
 Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr
 180 185 190
 Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu

	195		200		205
Leu	Asn	Phe	Ile	Trp	Phe
210					
Thr	Val	Phe	Thr	Val	Leu
225					
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Gly	Val	Pro	Pro	Lys	Gln
Leu	Leu	Thr	Ser	Leu	Met
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<210> 3603

<211> 1082

<212> DNA

<213> Homo sapiens

<400> 3603

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<210> 3604
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
 50 55 60
 Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
 65 70 75 80
 Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
 85 90 95
 Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
 100 105 110
 Leu Leu Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala
 115 120 125
 Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser
 130 135 140
 Arg Leu
 145

<210> 3605
 <211> 2004
 <212> DNA
 <213> Homo sapiens

<400> 3605
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 180
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 240
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 360
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 420
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 480

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540
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2004

<210> 3606

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3606

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Pro Arg Gly Val Gln Arg Val Glu Gly Lys Leu Arg Ala Ser Val Glu
 20           25           30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
 35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
 50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
 65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
 85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
130          135          140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
165          170          175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
210          215          220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
290          295          300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
305          310          315          320
Ile Glu Leu Asp

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<210> 3607

<211> 1726

<212> DNA

<213> Homo sapiens

<400> 3607

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120
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240
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300
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360
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420
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480
gctcatgact attggtgggc tgagcaccag aaaacctgtg gaggcactta cataaaaaac
540
aaggaaccag agaattactc aaaaaaaggc aaaggaaagg caaaactagg aaaggaaacca
600
gtattggcgg cagagaataa agataaaccc aacagagggtg aggccagct agtaatccct
660
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720
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900
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1620

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 1726

<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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		20						25					30		
Glu	Val	Lys	Trp	Ser	Val	Arg	Met	Thr	Leu	Cys	Ala	Gly	Ile	Cys	Ser
		35					40					45			
Tyr	Glu	Gly	Lys	Gly	Gly	Met	Cys	Ser	Ile	Arg	Leu	Ser	Glu	Pro	Leu
	50					55					60				
Leu	Lys	Leu	Arg	Pro	Arg	Lys	Asp	Leu	Val	Glu	Thr	Leu	Leu	His	Glu
65					70					75				80	
Met	Ile	His	Ala	Tyr	Leu	Phe	Val	Thr	Asn	Asn	Asp	Lys	Asp	Arg	Glu
			85						90					95	
Gly	His	Gly	Pro	Glu	Phe	Cys	Lys	His	Met	His	Arg	Ile	Asn	Ser	Leu
			100					105					110		
Thr	Gly	Ala	Asn	Ile	Thr	Val	Tyr	His	Thr	Phe	His	Asp	Glu	Val	Asp
	115					120						125			
Glu	Tyr	Arg	Arg	His	Trp	Trp	Arg	Cys	Asn	Gly	Pro	Cys	Gln	His	Arg
	130					135					140				
Pro	Pro	Tyr	Tyr	Gly	Tyr	Val	Lys	Arg	Ala	Thr	Asn	Arg	Glu	Pro	Ser
145					150					155				160	
Ala	His	Asp	Tyr	Trp	Trp	Ala	Glu	His	Gln	Lys	Thr	Cys	Gly	Gly	Thr
			165						170					175	
Tyr	Ile	Lys	Ile	Lys	Glu	Pro	Glu	Asn	Tyr	Ser	Lys	Lys	Gly	Lys	Gly
		180						185					190		
Lys	Ala	Lys	Leu	Gly	Lys	Glu	Pro	Val	Leu	Ala	Ala	Glu	Asn	Lys	Asp
	195					200						205			
Lys	Pro	Asn	Arg	Gly	Glu	Ala	Gln	Leu	Val	Ile	Pro	Phe	Ser	Gly	Lys
	210					215					220				
Gly	Tyr	Val	Leu	Gly	Glu	Thr	Ser	Asn	Leu	Pro	Ser	Pro	Gly	Lys	Leu
225					230					235				240	
Ile	Thr	Ser	His	Ala	Ile	Asn	Lys	Thr	Gln	Asp	Leu	Leu	Asn	Gln	Asn
			245						250					255	
His	Ser	Ala	Asn	Ala	Val	Arg	Pro	Asn	Ser	Lys	Ile	Lys	Val	Lys	Phe
			260					265				270			
Glu	Gln	Asn	Gly	Ser	Ser	Lys	Asn	Ser	His	Leu	Val	Ser	Pro	Ala	Val
	275					280						285			
Ser	Asn	Ser	His	Gln	Asn	Val	Leu	Ser	Asn	Tyr	Phe	Pro	Arg	Val	Ser
	290					295					300				
Phe	Ala	Asn	Gln	Lys	Ala	Phe	Arg	Gly	Val	Asn	Gly	Ser	Pro	Arg	Ile
305					310					315				320	
Ser	Val	Thr	Val	Gly	Asn	Ile	Pro	Lys	Asn	Ser	Val	Ser	Ser	Ser	Ser
			325						330					335	
Gln	Arg	Arg	Val	Ser	Ser	Ser	Lys	Ile	Ser	Leu	Arg	Asn	Ser	Ser	Lys

	340		345		350
Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser					
	355		360		365
Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val					
	370		375		380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn					
385	390		395		400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser					
	405		410		415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu					
	420		425		430
Gly Val Ser Asp					
	435				

<210> 3609

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 3609

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120
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180
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240
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780
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1020

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<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

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 20 25 30
 Glu Pro Gln Asp Leu Glu Ser Thr Asn Leu Leu Glu Ser Glu Ala Pro
 35 40 45
 Arg Asp Tyr Phe Leu Lys Phe Ala Tyr Ile Val Asp Leu Asp Ser Asp
 50 55 60
 Thr Ala Asp Lys Phe Leu Gln Leu Xaa Trp Asn Gln Arg Cys Gln Glu
 65 70 75 80
 Gly Ala Val Ser Tyr Gln Xaa Tyr Pro Leu Ser Pro Thr Arg Phe Thr
 85 90 95
 His Cys Glu Gln Val Leu Gly Glu Gly Ala Leu Asp Arg Gly Thr Tyr
 100 105 110
 Tyr Trp Glu Val Glu Ile Ile Glu Gly Trp Val Ser Met Gly Val Met
 115 120 125
 Ala Ala Asp Phe Ser Pro Gln Glu Pro Tyr Asp Arg Gly Arg Leu Gly
 130 135 140
 Arg Asn Ala His Ser Cys Cys Leu Gln Trp Asn Gly Arg Ser Phe Ser
 145 150 155 160
 Val Trp Phe His Gly Leu Glu Ala Pro Leu Pro His Pro Phe Ser Pro
 165 170 175
 Thr Val Gly Val Cys Leu Glu Tyr Ala Asp Arg Ala Leu Ala Phe Tyr
 180 185 190
 Ala Val Arg Asp Gly Lys Met Ser Leu Leu Arg Arg Leu Lys Ala Ser
 195 200 205
 Arg Pro Arg Arg Gly Gly Ile Pro Ala Ser Pro Ile Asp Pro Phe Gln
 210 215 220
 Ser Arg Leu Asp Ser His Phe Ala Gly Leu Phe Thr His Arg Leu Lys
 225 230 235 240
 Pro Ala Phe Phe Leu Glu Ser Val Asp Ala His Leu Gln Ile Gly Pro
 245 250 255
 Leu Lys Lys Ser Cys Ile Ser Val Leu Lys Arg Arg
 260 265

<210> 3611

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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 240
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 300
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 816

<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

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 20 25 30
 Lys Val Lys Pro Arg Lys Ile Phe Gln Trp Arg Gln Leu Glu Asn Leu
 35 40 45
 Tyr Phe Arg Glu Lys Lys Phe Ser Val Glu Val His Asp Pro Arg Arg
 50 55 60
 Ala Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His
 65 70 75 80
 Thr Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala
 85 90 95
 Ile Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys
 100 105 110
 Ile His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu


```

      115              120              125
Thr Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly
  130              135              140
Lys Ile Ile Ser Gly Ser Ser Gly Ser Leu Ser Ser Gly Ser Gln
  145              150              155              160
Glu Ser Asp Ser Ser Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu
      165              170              175
Lys Ser Arg Gln Glu Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu
  180              185              190
Glu Leu Lys Lys Leu Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu
  195              200              205
Pro Val Glu Tyr Pro Leu Asp Pro Gly Glu Glu Pro Pro Ile Val Arg
  210              215              220
Arg Arg Ile Gly Thr Ala Phe Lys Leu Asp Glu Gln Lys Ile Leu Pro
  225              230              235              240
Lys Gly Glu Glu Ala Glu Leu Glu Arg Leu Glu Arg Glu Phe Ala Ile
      245              250              255
Gln Ser Gln Ile Thr Glu Ala Ala Arg Leu Ala Ser Asp Pro Asn
  260              265              270

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<210> 3613

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3613

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240
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360
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420
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480
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tacagtctct togccattg ccctggagca cccgcacacg cgcacgcatt tccggcgcg
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<210> 3614

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3614

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 20             25             30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
 35             40             45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
 50             55             60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
 65             70             75             80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
 85             90             95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
100             105             110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro
115             120

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<210> 3615

<211> 1388

<212> DNA

<213> Homo sapiens

<400> 3615

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180
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300
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420
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900

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 1080
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<210> 3616
 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 3616
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 35 40 45
 Asp Asp Glu Asp Tyr Glu Arg Arg Arg Ser Glu Cys Val Ser Glu Met
 50 55 60
 Leu Asp Leu Glu Lys Gln Phe Ser Glu Leu Lys Glu Lys Leu Phe Arg
 65 70 75 80
 Glu Arg Leu Ser Gln Leu Arg Leu Arg Leu Glu Glu Val Gly Ala Glu
 85 90 95
 Arg Ala Pro Glu Tyr Thr Glu Pro Leu Gly Gly Leu Gln Arg Ser Leu
 100 105 110
 Lys Ile Arg Ile Gln Val Ala Gly Ile Tyr Lys Gly Phe Cys Leu Asp
 115 120 125
 Val Ile Arg Asn Lys Tyr Glu Cys Glu Leu Gln Gly Ala Lys Gln His
 130 135 140
 Leu Glu Ser Glu Lys Leu Leu Tyr Asp Thr Leu Gln Gly Glu Leu
 145 150 155 160
 Gln Glu Arg Ile Gln Arg Leu Glu Glu Asp Arg Gln Ser Leu Asp Leu
 165 170 175
 Ser Ser Glu Trp Trp Asp Asp Lys Leu His Ala Arg Gly Ser Ser Arg
 180 185 190
 Ser Trp Asp Ser Leu Pro Pro Ser Lys Arg Lys Ala Pro Leu Val
 195 200 205
 Ser Gly Pro Tyr Ile Val Tyr Met Leu Gln Glu Ile Gly Ile Leu Glu
 210 215 220
 Asp Trp Thr Ala Ile Lys Lys Ala Arg Ala Ala Val Ser Pro Gln Lys

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225          230          235          240
Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
          245          250          255
Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
          260          265          270
Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
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Trp Ser
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<210> 3617

<211> 804

<212> DNA

<213> Homo sapiens

<400> 3617

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420
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<210> 3618

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3618

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Ala Glu Glu Ile Cys Glu Ser Ser Ser Lys Met Ile Thr Phe Ile Asp

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                20                25                30
Leu Ala Gly His His Lys Tyr Leu His Thr Thr Ile Phe Gly Leu Thr
      35                40                45
Ser Tyr Cys Pro Asp Cys Ala Leu Leu Leu Val Ser Ala Asn Thr Gly
      50                55                60
Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
      65                70                75                80
Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
      85                90                95
Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
      100                105                110
Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
      115                120                125
Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
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Thr Leu Ser Ser
145

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<210> 3619

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3619

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720
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780
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840
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900

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948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

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		20						25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
		35				40						45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
	50					55					60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
65					70					75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85					90					95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
			100						105				110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
			115				120				125				
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
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<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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180
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420
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480
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540

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660
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<210> 3622

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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 20 25 30
 Glu Ser Gly Phe Asp Pro Asn Ile Arg Asp Ser Arg Gly Arg Thr Gly
 35 40 45
 Leu His Leu Ala Ala Ala Arg Gly Asn Val Asp Ile Cys Gln Leu Leu
 50 55 60
 His Lys Phe Gly Ala Asp Leu Leu Ala Thr Asp Tyr Gln Gly Asn Thr
 65 70 75 80
 Ala Leu His Leu Cys Gly His Val Asp Thr Ile Gln Phe Leu Val Ser
 85 90 95
 Asn Gly Leu Lys Ile Asp Ile Cys Asn His Gln Gly Ala Thr Pro Leu
 100 105 110
 Val Leu Ala Lys Arg Arg Gly Val Asn Lys Asp Val Ile Arg Leu Leu
 115 120 125
 Glu Ser Leu Glu Glu Gln Glu Val Lys Gly Phe Asn Arg Gly Thr His
 130 135 140
 Ser Lys Leu Glu Thr Met Gln Thr Ala Glu Ser Glu Ser Ala Met Glu
 145 150 155 160
 Ser His Ser Leu Leu Asn Pro Asn Leu Gln Gln Gly Glu Gly Val Leu


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                165                170                175
Ser Ser Phe Arg Thr Thr Trp Gln Glu Phe Val Glu Asp Leu Gly Phe
                180                185                190
Trp Arg Val Leu Leu Leu Ile Phe Val Ile Ala Leu Leu Ser Leu Gly
                195                200                205
Ile Ala Tyr Tyr Val Ser Gly Val Leu Pro Phe Val Glu Asn Gln Pro
                210                215                220
Glu Leu Val His
225

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<210> 3623
<211> 586
<212> DNA
<213> Homo sapiens

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480
gcatttcgga tgaagagagt cagacaggac ctgctgagct gctgtggcat ccccttccgc
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586

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<210> 3624
<211> 159
<212> PRT
<213> Homo sapiens

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<400> 3624
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20     25     30
Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
35     40     45
Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
50     55     60
Gly Ile Asn Ile Thr Asp Leu Ala Tyr Asn Leu Leu Val Ser Gly Ala
65     70     75     80
Leu Lys Thr His Phe Tyr Asn Ile Ala Pro Glu Ala Pro Thr Leu Ser

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      85              90              95
His Phe Gln Gln Thr Phe Cys Tyr Leu Met His Glu Phe His Lys Phe
      100              105              110
Trp Ile Glu Glu Asp Pro Met Asp Ile Met Glu Phe Asn Arg Val Arg
      115              120              125
Glu Lys Phe Arg Lys Arg Ile Ile Lys Gln Leu Gln Asn Pro Asp Met
      130              135              140
Ala Leu Cys Pro His Phe Ala Ala Ser Glu Gly Leu Ile Asn Met
      145              150              155

<210> 3625
<211> 4799
<212> DNA
<213> Homo sapiens

<400> 3625
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180
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1140

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 4680
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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

Met	Ser	Thr	Ser	Ser	Leu	Arg	Arg	Gln	Met	Lys	Asn	Ile	Val	His	Asn
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Tyr	Ser	Glu	Ala	Glu	Ile	Lys	Val	Arg	Glu	Ala	Thr	Ser	Asn	Asp	Pro
		20						25					30		
Trp	Gly	Pro	Ser	Ser	Ser	Leu	Met	Ser	Glu	Ile	Ala	Asp	Leu	Thr	Tyr
		35					40						45		
Asn	Val	Val	Ala	Phe	Ser	Glu	Ile	Met	Ser	Met	Ile	Trp	Lys	Arg	Leu
		50					55						60		
Asn	Asp	His	Gly	Lys	Asn	Trp	Arg	His	Val	Tyr	Lys	Ala	Met	Thr	Leu
		65				70				75					80
Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
			85						90						95
Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
			100					105						110	
Asp	Arg	Asp	Gly	Lys	Asp	Gln	Gly	Val	Asn	Val	Arg	Glu	Lys	Ala	Lys
			115				120						125		
Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
		130				135						140			
Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
			145			150				155					160
Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly	Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala
			165						170						175
Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
			180					185					190		
Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp	Gln	Glu	Glu	Arg	Ile	Arg	Arg	Gly
			195				200						205		
Asp	Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr
			210			215							220		
Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
			225			230				235					240
Ala	Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro
			245						250						255
Met	Ala	Ala	Ala	Val	Pro	Thr	Ala	Ala	Pro	Thr	Ser	Asp	Pro	Trp	Gly

260 265 270
 Gly Pro Pro Val Pro Pro Ala Ala Asp Pro Trp Gly Gly Pro Ala Pro
 275 280 285
 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro
 290 295 300
 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly
 305 310 315 320
 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser
 325 330 335
 Gly Pro Ser Ala Ser Asp Pro Trp Thr Pro Ala Pro Ala Phe Ser Asp
 340 345 350
 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr
 355 360 365
 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg
 370 375 380
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu
 385 390 395 400
 Leu Leu Ala Gly Glu Val Pro Ala Arg Ser Pro Gly Ala Phe Asp Met
 405 410 415
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro
 420 425 430
 Ala Ala Thr Pro Thr Pro Thr Pro Pro Thr Arg Lys Thr Pro Glu Ser
 435 440 445
 Phe Leu Gly Pro Asn Ala Ala Leu Val Asp Leu Asp Ser Leu Val Ser
 450 455 460
 Arg Pro Gly Pro Thr Pro Pro Gly Ala Lys Ala Ser Asn Pro Phe Leu
 465 470 475 480
 Pro Gly Gly Gly Pro Ala Thr Gly Pro Ser Val Thr Asn Pro Phe Gln
 485 490 495
 Pro Ala Pro Pro Ala Thr Leu Thr Leu Asn Gln Leu Arg Leu Ser Pro
 500 505 510
 Val Pro Pro Val Pro Gly Ala Pro Pro Thr Tyr Ile Ser Pro Leu Gly
 515 520 525
 Gly Gly Pro Gly Leu Pro Pro Met Met Pro Pro Gly Pro Pro Ala Pro
 530 535 540
 Asn Thr Asn Pro Phe Leu Leu
 545 550

<210> 3627

<211> 1760

<212> DNA

<213> Homo sapiens

<400> 3627

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 120
 aaaccaaaaca tcataaattt tgacaccagt ctgccgacat cacatacata cctaggtgct
 180
 gatatggaag aatttcattg caggactttg cagcatgacg acagctgtca ggtgattcca
 240
 gttcttccac aagtgatgat gatcctgatt cccggacaga cattacctct tcagcttttt
 300

caccctcaag aagtcagtat ggtgcggaat ttaattcaga aagatagaac ctttgcgtgt
360
cttgcatata gcaatgtaca ggaaggaggaa gcacagtttg gaacaacagc agagatatata
420
gcctatcgag aagaacagga ttttgggaatt gagatagtga aagtgaagc aattggaaga
480
caaagggttca aagtccttga gctaagaaca cagtcagatg gaatccagca agctaaagtg
540
caaattcttc ccgaatgtgt gttgccttca accatgtctg cagttcaatt agaattccctc
600
aataagtgcc agatatttcc ttcaaaacct gtctcaagag aagaccaatg ttcataataa
660
tggtggcgaga aataccagaa gagaaagttt cattgtgcaa atctaacttc atggcctcgc
720
tggtgtgtatt ccttatatga tgcgtgagacc ttaatggaca gaatcaagaa acagctacgt
780
gaatgggatg aaaactctaaa agatgattct ctctcttcaa atccaataga tttttcttac
840
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900
agtgtatcc agcgacttcg ctgtgaatta gacattatga ataatgtac ttccctttgc
960
tgtaacaacat gtcaagaaac agaaataaca accaaaaatg aaatatctag tttatcctta
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tgtggggcga tggcagctta tgtgaatcct catggatatg tgcattgagac acttactgtg
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1140
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1620
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<210> 3628

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3628

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 Asp Gln Asp Ser Lys Glu Ala Lys Lys Pro Asn Ile Ile Asn Phe Asp
 35 40 45
 Thr Ser Leu Pro Thr Ser His Thr Tyr Leu Gly Ala Asp Met Glu Glu
 50 55 60
 Phe His Gly Arg Thr Leu His Asp Asp Asp Ser Cys Gln Val Ile Pro
 65 70 75 80
 Val Leu Pro Gln Val Met Met Ile Leu Ile Pro Gly Gln Thr Leu Pro
 85 90 95
 Leu Gln Leu Phe His Pro Gln Glu Val Ser Met Val Arg Asn Leu Ile
 100 105 110
 Gln Lys Asp Arg Thr Phe Ala Val Leu Ala Tyr Ser Asn Val Gln Glu
 115 120 125
 Arg Glu Ala Gln Phe Gly Thr Thr Ala Glu Ile Tyr Ala Tyr Arg Glu
 130 135 140
 Glu Gln Asp Phe Gly Ile Glu Ile Val Lys Val Lys Ala Ile Gly Arg
 145 150 155 160
 Gln Arg Phe Lys Val Leu Glu Leu Arg Thr Gln Ser Asp Gly Ile Gln
 165 170 175
 Gln Ala Lys Val Gln Ile Leu Pro Glu Cys Val Leu Pro Ser Thr Met
 180 185 190
 Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe Pro Ser
 195 200 205
 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys
 210 215 220
 Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp Pro Arg
 225 230 235 240
 Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg Ile Lys
 245 250 255
 Lys Gln Leu Arg Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser Leu Pro
 260 265 270
 Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu Pro Ile
 275 280 285
 Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala Ile Gln
 290 295 300
 Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser Leu Cys
 305 310 315 320
 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe
 325 330 335
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly
 340 345 350
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu
 355 360 365
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp
 370 375 380
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe
 385 390 395 400
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr


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Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu Ile Ser
                420                425                430
Pro Asp Lys Val Ile Leu Cys Leu
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<210> 3629
 <211> 695
 <212> DNA
 <213> Homo sapiens

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<400> 3629
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120
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180
tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctacgcgcct
240
gcactgctgc cgcagttggc agcaaacgca gtgctgttcc tgtgcgggaa cgtggcagga
300
gtgtaccaca aggcgctgat ggagcgcgcc ctgcgggcca cgttcgggga ggcactcagc
360
tcctgcact caccggcgcg gctggacacc gagaagaagc accaggtcag ccgggcctag
420
gaaggtcaga gcagcgctcc gagggaggag ttgcttagat tacataacgg ggctcctcca
480
caagttgagt gactctgggc aggtttcttg acctgtttct tcttttgat aaaatgtggg
540
tattgcccac cttagaaggt tgtgaggctc aaacaaacca aagcttataa aaagcacttt
600
agagcattat gatattaagt gaactcccat tcaggtgttg atactgggag ttagtcact
660
aaaggtgatc agttaggat ggagtgtcgg ggccc
695

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<210> 3630
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 3630
Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly
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His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
20      25      30
Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
35      40      45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His
50      55      60
Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
65      70      75      80
Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly

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[illegible]

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<210> 3631
<211> 864
<212> DNA
<213> Homo sapiens
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<400> 3631
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120
gtgcgcaagg aatcagtc ccgctggatca tgtctgcatt tcccagatgt gctatttccc
180
ggggatttggg cctgtgtacat gcagtatctg gagaagcgca agaactcctg gtgcoacttt
240
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300
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360
agaacctact tcaagaaaag gctacagcag cacaaggatg aggacctctc cagcctggtc
420
caggacgatg acatgtctga ttggcacaag cacggggatg gatggaagac ccccgctccc
480
atggaggagg atccccctgt ggacacagac atgctcatgt cggaattcag cgacaccctc
540
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600
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660
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720
attgtacctg catctgcctc agcacctgta ccagatccca acaaccacc tgcacaggag
780
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840
cccaccgccc catccctggc gcgc
864

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<210> 3632
<211> 222
<212> PRT
<213> Homo sapiens
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<400> 3632
Met Gln Tyr Leu Glu Lys Arg Lys Asn Pro Val Cys His Phe Val Thr
      1           5           10           15
Pro Leu Asp Gly Ser Val Asp Val Asp Glu His Arg Arg Pro Glu Ala

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                20                25                30
Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile
      35                40                45
Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
      50                55                60
His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
      65                70                75                80
Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
      85                90                95
Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
      100                105                110
Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
      115                120                125
Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
      130                135                140
Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
      145                150                155                160
Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
      165                170                175
Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
      180                185                190
Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
      195                200                205
Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg
      210                215                220

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<210> 3633

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3633

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180
ctgtgtgaag atggcatttc tcaactgatta ttggaaaagc acaagagcca cgtgctggag
240
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300
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360
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420
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480
tattcagggg gcgacgatgg ccttctgagg ggctgggaca ccagggtacc cggaatttt
540
ctcttcacca gcnaaaagac acaccatnng ggtgtgtgca gcattccagag cagccctcat
600
cgggagcaca tcctggccac gggaagctat gatgaacaca tctactgtg ggacacacga
660

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aacatgaagc agccgttggc agatacgccct gtgcagggtg gggatatggag aatcaagtgg
 720
 caccctttcc accaccacct gctcctggcc gcctgcatgc acagtggctt taagatcctc
 780
 aactgccaaa aggcaatgga ggagaggcag gaggcgacgg tcttgacatc tcacacattg
 840
 cccgactcgc tgggtgatgg agccgactgg tcttggtctg tcttcogtgc tctgcagcgg
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 960
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 1020
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 1080
 caggctacag cagccaccac acgtgactgt ggcgtgaacc cagaagaagc agactcagcc
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 1320
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 1380
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 1560
 aaaaaaaaaa
 1570

<210> 3634

<211> 277

<212> FRT

<213> Homo sapiens

<400> 3634

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 20 25 30
 Glu Ile Val Tyr Ser Gly Gly Asp Asp Gly Leu Leu Arg Gly Trp Asp
 35 40 45
 Thr Arg Val Pro Gly Lys Phe Leu Phe Thr Ser Xaa Lys Thr His His
 50 55 60
 Xaa Gly Val Cys Ser Ile Gln Ser Ser Pro His Arg Glu His Ile Leu
 65 70 75 80
 Ala Thr Gly Ser Tyr Asp Glu His Ile Leu Leu Trp Asp Thr Arg Asn
 85 90 95
 Met Lys Gln Pro Leu Ala Asp Thr Pro Val Gln Gly Gly Val Trp Arg
 100 105 110
 Ile Lys Trp His Pro Phe His His His Leu Leu Leu Ala Ala Cys Met

115 120 125
 His Ser Gly Phe Lys Ile Leu Asn Cys Gln Lys Ala Met Glu Glu Arg
 130 135 140
 Gln Glu Ala Thr Val Leu Thr Ser His Thr Leu Pro Asp Ser Leu Val
 145 150 155 160
 Tyr Gly Ala Asp Trp Ser Trp Leu Leu Phe Arg Ser Leu Gln Arg Ala
 165 170 175
 Pro Ser Trp Ser Phe Pro Ser Asn Leu Gly Thr Lys Thr Ala Asp Leu
 180 185 190
 Lys Gly Ala Ser Glu Leu Pro Thr Pro Cys His Glu Cys Arg Glu Asp
 195 200 205
 Asn Asp Gly Glu Gly His Ala Arg Pro Gln Ser Gly Met Lys Pro Leu
 210 215 220
 Thr Glu Gly Met Arg Lys Asn Gly Thr Trp Leu Gln Ala Thr Ala Ala
 225 230 235 240
 Thr Thr Arg Asp Cys Gly Val Asn Pro Glu Glu Ala Asp Ser Ala Phe
 245 250 255
 Ser Leu Leu Ala Thr Cys Ser Phe Tyr Asp His Ala Leu His Leu Trp
 260 265 270
 Glu Trp Glu Gly Asn
 275

<210> 3635

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3635

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 120
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 180
 cctctggcga tgcctcaagc tttgcctctg gcggcaggtc ccttgectcc aggggtccatc
 240
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 300
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 360
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 420
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 480
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 540
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 720
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<210> 3636

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3636

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Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln
35 40 45
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met
50 55 60
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile
65 70 75 80
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu
85 90 95
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr
100 105 110
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr
115 120 125
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser
130 135 140
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr
145 150 155 160
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr
165 170 175
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala
180 185 190
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu
195 200 205
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr
210 215 220
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile
225 230 235 240
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys
245 250 255
Asp Thr Pro Leu Ser Leu Ala Cys Ser Gly Gly Arg Gln Glu Val Val
260 265 270
Glu Leu Leu Leu Ala Arg
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<210> 3637

<211> 2128

<212> DNA

<213> Homo sapiens

<400> 3637

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300
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1560
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1620
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1680

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 1920
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 1980
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 2100
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 2128

<210> 3638

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3638

Met Ala Ser Ser Leu Thr Cys Thr Gly Val Ile Trp Ala Leu Leu Ser
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 Phe Leu Cys Ala Ala Thr Ser Cys Val Gly Phe Phe Met Pro Tyr Trp
 20 25 30
 Leu Trp Gly Ser Gln Leu Gly Lys Pro Val Ser Phe Gly Thr Phe Arg
 35 40 45
 Arg Cys Ser Tyr Pro Val His Asp Glu Ser Arg Gln Met Met Val Met
 50 55 60
 Val Glu Glu Cys Gly Arg Tyr Ala Ser Phe Gln Gly Ile Pro Ser Ala
 65 70 75 80
 Glu Trp Arg Ile Cys Thr Ile Val Thr Gly Leu Gly Cys Gly Leu Leu
 85 90 95
 Leu Leu Val Ala Leu Thr Ala Leu Met Gly Cys Cys Val Ser Asp Leu
 100 105 110
 Ile Ser Arg Thr Val Gly Arg Val Ala Gly Gly Ile Gln Phe Leu Gly
 115 120 125
 Gly Leu Leu Ile Gly Ala Gly Cys Ala Leu Tyr Pro Leu Gly Trp Asp
 130 135 140
 Ser Glu Glu Val Arg Gln Thr Cys Gly Tyr Thr Ser Gly Gln Phe Asp
 145 150 155 160
 Leu Gly Lys Cys Glu Ile Gly Trp Ala Tyr Tyr Cys Thr Gly Ala Gly
 165 170 175
 Ala Thr Ala Ala Met Leu Leu Cys Thr Trp Leu Ala Cys Phe Ser Gly
 180 185 190
 Lys Lys Gln Lys His Tyr Pro Tyr
 195 200

<210> 3639

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3639
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 120
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 180
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 240
 aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atattctctt
 300
 ttttataat ggtgaacatt gcaaatgatt gatcgtttt tcttaggaag tggcattgcc
 360
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 420
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 480
 tcaggggcat tctcttcatt atgagtgaac tttttctgaa aggaacgtga tctcgttttc
 540
 tagccgcatg aagcatttct ccaacaagac ccactgtacc agtcctggga tctccacacc
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 720
 taagat
 726

<210> 3640
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 3640
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 20 25 30
 Ser Leu Leu Asn Pro Leu Lys Gly Glu Ile Phe Leu Leu Pro Ala Arg
 35 40 45
 Val Tyr Gly Asp Asp Thr Leu Arg Pro Cys Trp Cys Trp Lys Asn His
 50 55 60
 Leu Trp Gln Cys His Phe Leu Arg Lys Thr Tyr Gln Ser Phe Ala Met
 65 70 75 80
 Phe Thr Ile Asp Lys Lys Arg Asp Met Gln Ser Val Lys Cys Ile Thr
 85 90 95
 Leu Ile Ile Cys Leu His
 100

<210> 3641
 <211> 455
 <212> DNA
 <213> Homo sapiens

<400> 3641
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 120
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 180
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 300
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 455

<210> 3642

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3642
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 20 25 30
 Gln Ser Pro Glu Glu Ser Arg Ser Ser His Ala Ser Arg Asp Leu Ala
 35 40 45
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu
 50 55 60
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser
 65 70 75 80
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala
 85 90 95
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro
 100 105 110
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser
 115 120 125
 Pro Arg Glu Gln Phe Gly Thr Val Arg Ile Gly Phe Arg Glu Pro Ala
 130 135 140
 Phe Lys Thr Arg
 145

<210> 3643

<211> 2243

<212> DNA

<213> Homo sapiens

<400> 3643
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120 ctttgcaagc aggtggccag taaagctgag gagaatctgc tcatggtgct ggggacagac
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300 ctctataccc tgatcaaata tctgcaggtg gaatgtgaca gacaggtgga gaaggtggta
360 gacaagttca tcaagcaaa ggactaccac cagcagttcc ggcagtgtca gaacaacctg
420 atgagaaatt ctacaacaga aaaaatcgaa ccaagagaa tggaccccat cctgactgag
480 gtcacctga tgaatgcccg cagtgaagcta tacttacgct tcctcaagaa gaggattagc
540 tctgattttg aggtgggaga ctccatggcc tcagaggaa gaaagcaaga gcaccagaag
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660 ttatatgtta ccatggagga gtacttcatt agggagactg tcaataaggc tgtggctctg
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 2243

<210> 3644

<211> 560

<212> PRT

<213> Homo sapiens

<400> 3644

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			20					25					30		
Asp	Met	Ser	Asp	Arg	Arg	Ala	Ala	Val	Ile	Phe	Ala	Asp	Thr	Leu	Thr
		35				40						45			
Leu	Leu	Phe	Glu	Gly	Ile	Ala	Arg	Ile	Val	Glu	Thr	His	Gln	Pro	Ile
	50				55							60			
Val	Glu	Thr	Tyr	Tyr	Gly	Pro	Gly	Arg	Leu	Tyr	Thr	Leu	Ile	Lys	Tyr
	65				70				75					80	
Leu	Gln	Val	Glu	Cys	Asp	Arg	Gln	Val	Glu	Lys	Val	Val	Asp	Lys	Phe
			85					90					95		
Ile	Lys	Gln	Arg	Asp	Tyr	His	Gln	Gln	Phe	Arg	His	Val	Gln	Asn	Asn
	100							105					110		
Leu	Met	Arg	Asn	Ser	Thr	Thr	Glu	Lys	Ile	Glu	Pro	Arg	Glu	Leu	Asp
		115				120							125		
Pro	Ile	Leu	Thr	Glu	Val	Thr	Leu	Met	Asn	Ala	Arg	Ser	Glu	Leu	Tyr
	130				135						140				
Leu	Arg	Phe	Leu	Lys	Lys	Arg	Ile	Ser	Ser	Asp	Phe	Glu	Val	Gly	Asp
	145			150						155				160	
Ser	Met	Ala	Ser	Glu	Glu	Val	Lys	Gln	Glu	His	Gln	Lys	Cys	Leu	Asp
			165					170					175		
Lys	Leu	Leu	Asn	Asn	Cys	Leu	Leu	Ser	Cys	Thr	Met	Gln	Glu	Leu	Ile
	180							185					190		
Gly	Leu	Tyr	Val	Thr	Met	Glu	Glu	Tyr	Phe	Met	Arg	Glu	Thr	Val	Asn
	195					200						205			
Lys	Ala	Val	Ala	Leu	Asp	Thr	Tyr	Glu	Lys	Gly	Gln	Leu	Thr	Ser	Ser

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      210              215              220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala
225              230              235              240
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala
      245              250              255
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu
      260              265              270
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val
      275              280              285
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe
      290              295              300
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu
      305              310              315              320
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu
      325              330              335
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile
      340              345              350
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu
      355              360              365
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr
      370              375              380
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn
      385              390              395              400
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp
      405              410              415
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu
      420              425              430
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp
      435              440              445
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys
      450              455              460
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp
      465              470              475              480
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp
      485              490              495
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu
      500              505              510
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser
      515              520              525
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu
      530              535              540
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu
      545              550              555              560

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<210> 3645

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3645

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120

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 240
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 720
 gccattcat ttgagtagta tctattggag aatttggtga gggagccagc agctctgatg
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 823

<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

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 20 25 30
 Thr Glu Pro Pro Ala Asn Leu Asp Arg Leu Ile Pro Met Tyr Lys Gly
 35 40 45
 Ala Lys Ile Gln Gly Gly Ile Leu Pro Gly Ser Tyr His Tyr Leu His
 50 55 60
 Ile Ala Lys Pro Ala Ile Pro Thr Pro Leu Glu Val Gln Met Ala Gln
 65 70 75 80
 Pro Asn Tyr Gly Leu Glu Leu Val Thr Gly Ser Ala Lys Asn Gly Thr
 85 90 95
 Tyr Phe Arg Ile His Ile Asn Lys Tyr Lys Met Val Glu Thr Ile Thr
 100 105 110
 Cys Leu Ser Arg Glu Pro Phe Pro Ala Ser Asn Tyr Ile Arg Leu Phe
 115 120 125
 Gly Gln His Glu Gln Leu Leu Asn Asn Leu Cys Ala Arg Tyr Asp Glu
 130 135 140
 Asn Leu Ile Thr Asp Leu Tyr Ser Tyr Phe Thr Glu Pro Trp Cys Leu
 145 150 155 160
 Ala Leu Phe His Asp Arg Phe Ile Asp Leu Arg Lys Glu Leu Arg Gln
 165 170 175
 Ile Leu Ala Ser Lys Glu Glu Glu Asp Leu Pro Ser Ile Glu Gln Leu

	180		185		190
Ala	His	Gln	Ile	Glu	Asp
	195		200		205
Gln	Tyr	Leu	Lys	Arg	Val
	210		215		220
Glu	Arg	Ser	Thr	Leu	Asp
	225		230		235
Met	Tyr	Ala			

<210> 3647

<211> 584

<212> DNA

<213> Homo sapiens

<400> 3647

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 480
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<210> 3648

<211> 63

<212> PRT

<213> Homo sapiens

<400> 3648

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Ala	Trp	Leu	Trp	Ala	Arg	Met	Pro	Leu	Ser	Ala	Val	Thr	Ser	His	Cys
			20				25				30				
Val	Ser	Ser	Arg	Trp	Arg	Ser	Pro	Thr	Arg	Ala	Pro	Thr	Pro	Ala	Thr
			35				40				45				
Cys	Thr	Thr	Ile	Thr	Val	Ala	Cys	Thr	Asn	Ala	Ala	Ser	Ser	Thr	
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<210> 3649

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3649

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 180
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 240
 aggaatcaga aggctgggtg gttaagacc cagaaaatat caagctcgct tttacgatgg
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 360
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 420
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 480
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 540
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 648

<210> 3650

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3650

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 20 25 30
 Ile Ser Ala Asp Val Lys Glu Val Leu Thr Asp Gly Asn Glu Lys
 35 40 45
 Ala Ile Arg Asn Val Gln Asp Ile Thr Arg Asn Gln Lys Ala Gly
 50 55 60
 Val Phe Lys Thr Gln Lys Ile Ser Ser Cys Val Leu Arg Trp Asp Asn
 65 70 75 80
 Glu Thr Asp Val Ser Gln Leu Glu Gly His Phe Asp Ile Val Met Cys
 85 90 95
 Ala Asp Cys Leu Phe Leu Asp Gln Tyr Arg Ala Ser Leu Val Asp Ala
 100 105 110
 Ile Lys Arg Leu Leu Gln Pro Arg Gly Lys Ala Met Val Phe Ala Pro
 115 120 125
 Arg Arg Gly Asn Thr Leu Asn Gln Phe Cys Asn Leu Ala Glu Lys Ala
 130 135 140
 Gly Phe Cys Ile Gln Arg His Glu Asn Tyr Asp Glu His Ile Ser Asn
 145 150 155 160
 Phe His Ser Lys Leu Lys Lys Glu Asn Pro Asp Ile Tyr Glu Glu Asn

	165		170		175
Leu His Tyr	Pro Pro Leu Leu Ile	Leu Thr Lys His Gly			
	180	185			

<210> 3651
 <211> 2469
 <212> DNA
 <213> Homo sapiens

<400> 3651
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 120
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 180
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 720
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 780
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 840
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 900
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 960
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 1080
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 1200
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 1260
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 1320

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 1380
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 2469

<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

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Glu	Gly	Ala	Thr	Val	Val	Ile	Leu	Asn	Met	Pro	Lys	Gly	Thr	Glu	Phe
			20					25				30			
Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
	35					40					45				
Lys	Met	Ile	Pro	Pro	Gly	Ile	His	Phe	Leu	His	Tyr	Ser	Ser	Val	Asp

50		55		60
Lys Ala Asn Pro Lys Glu Val Gly Pro Arg Met Gly Phe Phe Leu Ser				
65	70	75		80
Leu His Gln Arg Gly Leu Thr Val Leu Arg Trp Ser Thr Leu Arg Glu				
	85	90		95
Glu Val Asp Leu Ser Pro Ala Pro Glu Ser Glu Val Glu Ala Met Arg				
	100	105		110
Ala Asn Leu Gln Glu Leu Asp Gln Phe Leu Gly Pro Tyr Pro Tyr Ala				
	115	120		125
Thr Leu Lys Lys Trp Ile Ser Leu Thr Asn Phe Ile Ser Glu Ala Thr				
	130	135		140
Val Glu Lys Leu Gln Pro Glu Asn Arg Gln Ile Cys Ala Phe Ser Asp				
	145	150		155
Val Leu Pro Val Leu Ser Met Lys His Thr Lys Asp Arg Val Gly Gln				
	165	170		175
Asn Leu Pro Arg Cys Gly Ile Glu Cys Lys Ser Tyr Gln Glu Gly Leu				
	180	185		190
Ala Arg Leu Pro Glu Met Lys Pro Arg Ala Gly Thr Glu Ile Arg Phe				
	195	200		205
Ser Glu Leu Pro Thr Gln Met Phe Pro Glu Gly Ala Thr Pro Ala Glu				
	210	215		220
Ile Thr Lys His Ser Met Asp Leu Ser Tyr Ala Leu Glu Thr Val Leu				
	225	230		235
Ile Lys Gln Phe Pro Ser Ser Pro Gln Asp Val Leu Gly Glu Leu Gln				
	245	250		255
Phe Ala Phe Val Cys Phe Leu Leu Gly Asn Val Tyr Glu Ala Phe Glu				
	260	265		270
His Trp Lys Arg Leu Leu His Leu Leu Cys Arg Ser Glu Ala Ala Met				
	275	280		285
Met Lys His His Thr Leu Tyr Ile Asn Leu Met Ser Ile Leu Tyr His				
	290	295		300
Gln Leu Gly Glu Ile Pro Ala Asp Phe Phe Val Asp Ile Val Ser Gln				
	305	310		315
Asp Asn Phe Leu Thr Ser Thr Leu Gln Val Phe Phe Ser Ser Ala Cys				
	325	330		335
Ser Ile Ala Val Asp Ala Thr Leu Arg Lys Lys Ala Glu Lys Phe Gln				
	340	345		350
Ala His Leu Thr Lys Lys Phe Arg Trp Asp Phe Ala Glu Pro Glu				
	355	360		365
Asp Cys Ala Pro Val Val Val Glu Leu Pro Glu Gly Ile Glu Met Gly				
	370	375		380

<210> 3653

<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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120

tcttctccac tggagatgct ccttcagctc agcaggacgc tagctcggaa ctcagactgc

180

acattttttgc ggattgggag gagggccgac gccgtggcgg gatagtctct ggagctgcct
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 283

<210> 3654

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3654

Met	Pro	Gln	Ala	Ser	Pro	Gly	Ala	Trp	Arg	His	Trp	Arg	Lys	Cys	Ile
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Ile	Pro	Ile	Arg	Ala	Ser	Phe	Ala	Ala	Ala	Glu	Met	Glu	Arg	Cys	His
		20					25					30			
Gln	Ala	Val	Phe	Ser	Thr	Gly	Asp	Ala	Pro	Ser	Ala	Gln	Gln	Asp	Ala
		35				40					45				
Ser	Ser	Glu	Leu	Arg	Leu	His	Ile	Phe	Ala	Asp	Trp	Glu	Glu	Gly	Arg
	50				55				60						
Arg	Arg	Gly	Arg	Ile	Val	Ser	Gly	Ala	Ala	Phe	Trp	Gly	Cys	Leu	Pro
65				70				75						80	
Val	Gly	Ile	Phe	Ser	Thr	Pro	Arg								
				85											

<210> 3655

<211> 3477

<212> DNA

<213> Homo sapiens

<400> 3655

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 120
 gagtgaaggg ttgctctggg gcagctggag gaagaacagg gaacctaggg ttggggagag
 180
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 360
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 420
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 660
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 720

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 3360
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<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

Met Ala Ser Leu Lys Glu Leu Ala Pro Thr Gly Arg Ile Met Asn Ser
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 20 25 30
 Lys Ala Gly Thr Gly Ser Met Arg Ser Gly Phe Pro Ala Lys Ser Ala
 35 40 45
 Met Trp Arg Tyr Arg Gly Thr Pro Phe Ser Lys Ala Val Glu His Ile
 50 55 60
 Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys Lys Leu Asn Val Thr

65		70		75		80
Glu	Gln	Glu	Lys	Ile	Asp	Lys
		85		90		95
Asn	Lys	Ser	Lys	Phe	Gly	Ala
		100		105		110
Val	Cys	Lys	Ala	Gly	Ala	Val
		115		120		125
Ile	Ala	Asp	Leu	Ala	Gly	Asn
		130		135		140
Phe	Asn	Val	Ile	Asn	Gly	Gly
		145		150		155
Gln	Glu	Phe	Met	Ile	Leu	Pro
		165		170		175
Met	Arg	Ile	Gly	Ala	Glu	Val
		180		185		190
Glu	Lys	Tyr	Gly	Lys	Asp	Ala
		195		200		205
Ala	Pro	Asn	Ile	Leu	Glu	Asn
		210		215		220
Ala	Ile	Gly	Lys	Ala	Gly	Tyr
		225		230		235
Val	Ala	Ala	Ser	Glu	Phe	Arg
		245		250		255
Lys	Ser	Pro	Asp	Asp	Pro	Ser
		260		265		270
Asp	Leu	Tyr	Lys	Ser	Phe	Ile
		275		280		285
Asp	Pro	Phe	Asp	Gln	Asp	Trp
		290		295		300
Ser	Ala	Gly	Ile	Gln	Val	Gly
		305		310		315
Lys	Arg	Ile	Ala	Gln	Ala	Val
		325		330		335
Leu	Lys	Val	Asn	Gln	Ile	Gly
		340		345		350
Lys	Leu	Ala	Gln	Ala	Asn	Gly
		355		360		365
Gly	Glu	Thr	Glu	Asp	Thr	Phe
		370		375		380
Thr	Gly	Gln	Ile	Lys	Thr	Gly
		385		390		395
Lys	Tyr	Asn	Gln	Leu	Leu	Arg
		405		410		415
Lys	Phe	Ala	Gly	Arg	Asn	Phe
		420		425		

<210> 3657

<211> 337

<212> DNA

<213> Homo sapiens

<400> 3657

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 120
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 180
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 240
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 300
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 337

<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

Met	Cys	His	Met	Phe	Ile	Phe	Ser	Ser	Arg	Arg	Thr	Arg	Ala	Gly	Val
1			5						10					15	
Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
			35				40					45			
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
			50			55				60					
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
			65			70				75				80	
Gln	Arg	Val	His	Val	Gln	Val	Cys	His	Met	Phe	Ile	Phe	Gly	Ser	Arg
			85						90					95	

Arg Thr Arg

<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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 180
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 480

gaccacctta aggatgaatt aaaccttgc gattctgaag tggataacca aaaacgaggg
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 720
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<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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 Glu Glu His Gln Ser Val Asp Ile Ala Thr Leu Glu Asp Glu Ala Gln
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Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr		285
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<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
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Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
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20          25          30
Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
35          40          45
Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
50          55          60
Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
65          70          75          80
Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
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Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

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<211> 1728

<212> PRT

<213> Homo sapiens

<400> 3666

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Leu	Leu	Thr	Leu	Leu	Ser	Lys	Phe	Glu	Asp	Lys	Leu	Pro	Glu	Asp	Met
				165				170					175		
Ala	Arg	Phe	Tyr	Ile	Gly	Glu	Met	Val	Leu	Ala	Ile	Asp	Ser	Ile	His
				180				185				190			
Gln	Leu	His	Tyr	Val	His	Arg	Asp	Ile	Lys	Pro	Asp	Asn	Val	Leu	Leu
			195				200					205			
Asp	Val	Asn	Gly	His	Ile	Arg	Leu	Ala	Asp	Phe	Gly	Ser	Cys	Leu	Lys
			210				215				220				
Met	Asn	Asp	Asp	Gly	Thr	Val	Gln	Ser	Ser	Val	Ala	Val	Gly	Thr	Pro

	660		665		670
Ala Gly Ala Thr	Leu Glu His	Gln Gln Glu Ile Ser	Lys Ile Lys Ser		
675		680	685		
Glu Leu Glu Lys	Lys Val Leu Phe Tyr	Glu Glu Glu Leu Val Arg Arg			
690	695	700			
Glu Ala Ser His	Val Leu Glu Val Lys	Asn Val Lys Lys Glu Val His			
705	710	715	720		
Asp Ser Glu Ser	His Gln Leu Ala Leu	Gln Lys Glu Ile Leu Met Leu			
	725	730	735		
Lys Asp Lys Leu	Glu Lys Ser Lys Arg	Glu Arg His Asn Glu Met Glu			
	740	745	750		
Glu Ala Val Gly	Thr Ile Lys Asp Lys Tyr	Glu Arg Glu Ala Met			
	755	760	765		
Leu Phe Asp Glu	Asn Lys Lys Leu Thr Ala	Glu Asn Glu Lys Leu Cys			
770	775	780			
Ser Phe Val Asp	Lys Leu Thr Ala Gln	Asn Arg Gln Leu Glu Asp Glu			
785	790	795	800		
Leu Gln Asp Leu	Ala Ala Lys Lys Glu	Ser Val Ala His Trp Glu Ala			
	805	810	815		
Gln Ile Ala Glu	Ile Ile Gln Trp Val	Ser Asp Glu Lys Asp Ala Arg			
	820	825	830		
Gly Tyr Leu Gln	Ala Leu Ala Ser Lys	Met Thr Glu Glu Leu Glu Ala			
	835	840	845		
Leu Arg Ser Ser	Ser Leu Gly Ser Arg	Thr Leu Asp Pro Leu Trp Lys			
	850	855	860		
Val Arg Arg Ser	Gln Lys Leu Asp Met	Ser Ala Arg Leu Glu Leu Gln			
865	870	875	880		
Ser Ala Leu Glu	Ala Glu Ile Arg Ala	Lys Gln Leu Val Gln Glu Glu			
	885	890	895		
Leu Arg Lys Val	Lys Asp Ala Asn Leu Thr	Leu Glu Ser Lys Leu Lys			
	900	905	910		
Asp Ser Glu Ala	Lys Asn Arg Glu Leu Leu Glu Glu Met	Glu Ile Leu			
	915	920	925		
Lys Lys Lys Met	Glu Glu Lys Phe Arg Ala Asp	Thr Gly Leu Lys Leu			
	930	935	940		
Pro Asp Phe Gln	Asp Ser Ile Phe Glu Tyr Phe	Asn Thr Ala Pro Leu			
945	950	955	960		
Ala His Asp Leu	Thr Phe Arg Asp Ser	Leu Ser Ser Ser Ser Ala Ser			
	965	970	975		
Ser Leu Leu Ala	Phe Trp Glu Glu Thr	Ser Ser Ala Ser Glu Gln Glu			
	980	985	990		
Thr Gln Ala Pro	Lys Pro Glu Ala Ser	Pro Ser Met Ser Val Ala Ala			
	995	1000	1005		
Ser Glu Gln Gln	Glu Asp Met Ala Arg	Pro Pro Gln Arg Pro Ser Ala			
	1010	1015	1020		
Val Pro Leu Pro	Thr Thr Gln Ala Leu Ala Leu Ala Gly	Pro Lys Pro			
1025	1030	1035	1040		
Lys Ala His Gln	Phe Ser Ile Lys Ser Phe Ser	Ser Pro Thr Gln Cys			
	1045	1050	1055		
Ser His Cys Thr	Ser Leu Met Val Gly Leu Ile	Arg Gln Gly Tyr Ala			
	1060	1065	1070		
Cys Glu Val Cys	Ser Phe Ala Cys His Val Ser Cys	Lys Asp Gly Ala			
	1075	1080	1085		
Pro Gln Val Cys	Pro Ile Pro Pro Glu Gln Ser	Lys Arg Pro Leu Gly			

1090	1095	1100
Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr Lys Gly His Val Lys		
1105	1110	1115
Val Pro Lys Pro Thr Gly Val Lys Lys Gly Trp Gln Arg Ala Tyr Ala		
	1125	1130
Val Val Cys Asp Cys Lys Leu Phe Leu Tyr Asp Leu Pro Glu Gly Lys		
	1140	1145
Ser Thr Gln Pro Gly Val Ile Ala Ser Gln Val Leu Asp Leu Arg Asp		
	1155	1160
Asp Glu Phe Ser Val Ser Ser Val Leu Ala Ser Asp Val Ile His Ala		
	1170	1175
Thr Arg Arg Asp Ile Pro Cys Ile Phe Arg Val Thr Ala Ser Leu Leu		
	1185	1190
Gly Ala Pro Ser Lys Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu		
		1205
Asn Glu Lys Arg Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile		
	1220	1225
Leu His Lys Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu		
	1235	1240
Ala Tyr Asp Ser Ser Leu Pro Leu Ile Lys Ala Ile Leu Thr Ala Ala		
	1250	1255
Ile Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr		
	1265	1270
Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys Lys		
		1285
Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val Ile Leu		
	1300	1305
Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp Ser Ser Leu		
	1315	1320
Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro Glu Thr Lys Gly		
	1330	1335
Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg Asn Ser Gly Thr Cys		
	1345	1350
Leu Phe Val Ala Val Lys Arg Leu Ile Leu Cys Tyr Glu Ile Gln Arg		
		1365
Thr Lys Pro Phe His Arg Lys Phe Asn Glu Ile Val Ala Pro Gly Ser		
	1380	1385
Val Gln Cys Leu Ala Val Leu Arg Asp Arg Leu Cys Val Gly Tyr Pro		
	1395	1400
Ser Gly Phe Cys Leu Leu Ser Ile Gln Gly Asp Gly Gln Pro Leu Asn		
	1410	1415
Leu Val Asn Pro Asn Asp Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser		
	1425	1430
Phe Asp Ala Leu Cys Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu		
		1445
Cys Phe Ser His Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala		
	1460	1465
Arg Ala Gln Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys		
	1475	1480
Ser Pro Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe		
	1490	1495
Asp Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile		
	1505	1510
Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu Pro		
		1515
		1520

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1525          1530          1535
Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val Leu Asn
1540          1545          1550
Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu Arg Thr Arg
1555          1560          1565
Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu Glu Arg Leu Gln
1570          1575          1580
Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu Arg Ser Lys Met Ile
1585          1590          1595          1600
Ser Asn Pro Thr Asn Phe Asn His Val Ala His Met Gly Pro Gly Asp
1605          1610          1615
Gly Met Gln Val Leu Met Asp Leu Pro Leu Ser Ala Val Pro Pro Ser
1620          1625          1630
Gln Glu Glu Arg Pro Gly Pro Ala Pro Thr Asn Leu Ala Arg Gln Pro
1635          1640          1645
Pro Ser Arg Asn Lys Pro Tyr Ile Ser Trp Pro Ser Ser Gly Gly Ser
1650          1655          1660
Glu Pro Ser Val Thr Val Pro Leu Arg Ser Met Ser Asp Pro Asp Gln
1665          1670          1675          1680
Asp Phe Asp Lys Glu Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro
1685          1690          1695
Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His
1700          1705          1710
Arg Ser Gln Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr
1715          1720          1725

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<210> 3667

<211> 505

<212> DNA

<213> Homo sapiens

<400> 3667

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tgtacattaa tctaaatacc tggatttaca ttgatatttt aatatttgta aatttcattg
60
taattcccta tgtaacaag tttaataagt catctgtaac agtacaatta agtccatata
120
tgattgtatt tactctttct tcctactca tagtatgcgt tccattttga ggaatcacag
180
atatcgaaga gatgccagaa cactagaaga tgaagaagag atgtggttta acacagatga
240
agatgacatg gaagatggag aagctgtagt gtctccatct gacaaaacta aaatgatga
300
tgatattatg gatccaataa gtaaatcat ggaaaggag aaattaaag aaagtggaga
360
aaaggaaagt cttctgaaaa caaaccttct tggacggcag agcccaagtt tcaagcttct
420
cctgtccagt ggaacgaaga ctaacctcac cagccagta tctacaacaa atctgcctgg
480
ttctcggga tcacctggat cccca
505

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<210> 3668

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3668

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Met Arg Ser Ile Leu Arg Asn His Arg Tyr Arg Arg Asp Ala Arg Thr
 1           5           10           15
Leu Glu Asp Glu Glu Glu Met Trp Phe Asn Thr Asp Glu Asp Asp Met
 20           25           30
Glu Asp Gly Glu Ala Val Val Ser Pro Ser Asp Lys Thr Lys Asn Asp
 35           40           45
Asp Asp Ile Met Asp Pro Ile Ser Lys Phe Met Glu Arg Lys Lys Leu
 50           55           60
Lys Glu Ser Glu Glu Lys Glu Val Leu Leu Lys Thr Asn Leu Ser Gly
 65           70           75           80
Arg Gln Ser Pro Ser Phe Lys Leu Ser Leu Ser Ser Gly Thr Lys Thr
 85           90           95
Asn Leu Thr Ser Gln Ser Ser Thr Thr Asn Leu Pro Gly Ser Pro Gly
100           105           110
Ser Pro Gly Ser Pro
115

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<210> 3669

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3669

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cttgactccc agcattctca tctcaccttg ccatcactata agatgtcttg tttgtctatg
60
gctgagggttc tggcccgcac ggactggaca gttagaggatg gattacagaa atacagagaga
120
ggattaatct tttacattaa tcattcactt tatgaaaacc tggatgaaga attaaatgaa
180
gaattagcag caaaagtggg tcagatgttt tatgtggctg agccaaagca agtgcccccatt
240
attctctgta gtccttctat gaagaatatt aatcctttaa ctgccatgag ctatctaagg
300
aagatggata cttctggggtt ttcattccatc ttagtgacac tgagcaaggc agcagtgggca
360
ctgaaaaatgg gagatcttga cgtgtacaga aatgaaatga aaagccatcc agagatgaag
420
ttgggtgtgtg gcttcatttt ggaaccacgc ctgttgatgc aacacaggaa gggacagatt
480
gttccaactg agcttgcgac tcacttgaag gagactcagc caggattgct tgtggcttca
540
gtcctgggat tgcagaagaa cagcaaaatt gggattgaag aagcagattc tttctttaag
600
gtgcttttgt gtaaggatga agataccatc cctcagctct tgatagactt ttgggaagct
660
cagctagtgg catgtctccc agatgtggta cttcaggaa cttttttcaa actcacatca
720
cagtacatct ggagattgtc taagaggcag cctcctgaca ccacaccatt gogaacatcg
780
gaggatctga taaatgctgt tagtcattat ggcttaattt atccatgggt tcacgtcgta
840

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atatcatctg attcttttagc tgataaaaaat tatacagaag atcttttcaa attacagtct
 900
 cttatatgtg gtcccttcatt tgacatagct tccattatcc cgttcttggg gccactttca
 960
 gaagacacta ttgccggcct cagtgtccat gttctgtgtc gtacacgctt gaaagagtat
 1020
 gaacagtgc tagacatact gttagagaga tgcccgaggg cagtcattcc atatgctaata
 1080
 catgaactga aagaagagaa ccggactctg tgggtggaaaa aactgttgcc tgaactttgt
 1140
 cagagaataa aatgtgtgtg agagaagtat caactctacc tgtcatcatt aaaagcttaa
 1200
 ttttcacggg aactgtggaa gctagc
 1226

<210> 3670

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3670

Met	Ser	Gly	Leu	Ser	Met	Ala	Glu	Val	Leu	Ala	Arg	Thr	Asp	Trp	Thr
1				5					10					15	
Val	Glu	Asp	Gly	Leu	Gln	Lys	Tyr	Glu	Arg	Gly	Leu	Ile	Phe	Tyr	Ile
		20						25					30		
Asn	His	Ser	Leu	Tyr	Glu	Asn	Leu	Asp	Glu	Glu	Leu	Asn	Glu	Glu	Leu
		35					40						45		
Ala	Ala	Lys	Val	Val	Gln	Met	Phe	Tyr	Val	Ala	Glu	Pro	Lys	Gln	Val
		50				55						60			
Pro	His	Ile	Leu	Cys	Ser	Pro	Ser	Met	Lys	Asn	Ile	Asn	Pro	Leu	Thr
65					70					75				80	
Ala	Met	Ser	Tyr	Leu	Arg	Lys	Met	Asp	Thr	Ser	Gly	Phe	Ser	Ser	Ile
				85					90					95	
Leu	Val	Thr	Leu	Ser	Lys	Ala	Ala	Val	Ala	Leu	Lys	Met	Gly	Asp	Leu
		100						105					110		
Asp	Val	Tyr	Arg	Asn	Glu	Met	Lys	Ser	His	Pro	Glu	Met	Lys	Leu	Val
		115					120					125			
Cys	Gly	Phe	Ile	Leu	Glu	Pro	Arg	Leu	Leu	Ile	Gln	His	Arg	Lys	Gly
		130					135					140			
Gln	Ile	Val	Pro	Thr	Glu	Leu	Ala	Thr	His	Leu	Lys	Glu	Thr	Gln	Pro
145					150					155				160	
Gly	Leu	Leu	Val	Ala	Ser	Val	Leu	Gly	Leu	Gln	Lys	Asn	Ser	Lys	Ile
				165					170					175	
Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
				180					185					190	
Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
		195					200						205		
Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
		210					215						220		
Thr	Ser	Gln	Tyr	Ile	Trp	Arg	Leu	Ser	Lys	Arg	Gln	Pro	Pro	Asp	Thr
225					230					235				240	
Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
				245						250				255	
Gly	Leu	Ile	Tyr	Pro	Trp	Val	His	Val	Val	Ile	Ser	Ser	Asp	Ser	Leu

```

                260                265                270
Ala Asp Lys Asn Tyr Thr Glu Asp Leu Ser Lys Leu Gln Ser Leu Ile
      275                280                285
Cys Gly Pro Ser Phe Asp Ile Ala Ser Ile Ile Pro Phe Leu Glu Pro
      290                295                300
Leu Ser Glu Asp Thr Ile Ala Gly Leu Ser Val His Val Leu Cys Arg
305                310                315                320
Thr Arg Leu Lys Glu Tyr Glu Gln Cys Ile Asp Ile Leu Leu Glu Arg
      325                330                335
Cys Pro Glu Ala Val Ile Pro Tyr Ala Asn His Glu Leu Lys Glu Glu
      340                345                350
Asn Arg Thr Leu Trp Trp Lys Lys Leu Leu Pro Glu Leu Cys Gln Arg
      355                360                365
Ile Lys Cys Gly Gly Glu Lys Tyr Gln Leu Tyr Leu Ser Ser Leu Lys
      370                375                380
Ala
385

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<210> 3671

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3671

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nntacagcta agattcattt catacgtttg atgcttagct gaaaaattac aataaattct
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ccaatgaaat tatgtatctt tatttaatga aaatgcctcg tgcgtaccaa ggtatgtact
120
agggcatctg gggtaagtaa aaacaaacac atagagcctg cctggagaag ctcatggctt
180
gatggaaaaga taagcaagaa gagttaattt ctaatcaata tgataaaaag gtcagagagc
240
agtttctgaa aaacatgttt ttgagttgag tcctgaaaga caaggagatg ttagtaaaagc
300
agagaaggga gaattcatte tagaaagatc agacaatgtg tgggaagggc agagctcgaa
360
aagagcatgc cccatttggg gaagcatcaa gaagcccaag cgttagaagc accggcccca
420
tgagacaaag acacagctag agagattgac taggccatgt cggaatgtcc tcttatttta
480
tacatacata agcatataga tacatatagc caaagttacc tttttaatga tcttttttac
540
ccagtgtatt ctggaggctg aatggtcaca tatgaacatc tccgagaggt tgtgtttggc
600
aaaagtgaag atgagcatta tcccctttgg aaatcagcta ttggagggat gatggctggg
660
gttattggcc agtttttagc caatccaact gacctagtga aggttcagat gcaaatggaa
720
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca tgcatttgca
780
aaaactcttag ctgaaggagg aatacagagg ctttgggcag gctgggta
828

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<210> 3672

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3672

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Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp Thr
 1           5           10           15
Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr Ser
          20           25           30
Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly
          35           40           45
Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly
          50           55           60
Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu
65           70           75           80
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys
          85           90           95
Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile Leu Ala
          100          105          110
Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val
          115          120

```

<210> 3673

<211> 1052

<212> DNA

<213> Homo sapiens

<400> 3673

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nagatctcaa aatctggact tgaaaagaat tccttgatct atgaactttt ctctgtttatg
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gttcattctg ggagcgctgc tggtggtcat tattatgcat gtataaagtc attcagtgat
120
gagcagtggt acagcttcaa tgatcaacat gtcagcagga taacacaaga ggacattaag
180
aaaacacatg gtggatcttc aggaagcaga ggatattatt ctagtgtctt cgcaagttcc
240
acaaatgcat atatgctgat ctatagactg aaggatccag ccagaaatgc aaaatttcta
300
gaagtggatg aatacccaga acatattaaa aacttggtgc agaaagagag agagtggaa
360
gaacaagaaa agagacaacg agaaattgag cgcaatacat gcaagataaa attattctgt
420
ttgcatccta caaaacaagt aatgatggaa aataaattgg aggttcataa ggataagaca
480
ttaaaggaag cagtagaaat ggcttataag atgatggatt tagaagaggt aataccctg
540
gattgctgtc gccttgttaa atatgatgag tttcatgatt atctagaacg gtcatatgaa
600
ggagaagaag atacaccaat ggggcttcta ctagggtggc tcaagtcaac atatatgttt
660
gatctgtctg tggagacgag aaagcctgat caggttttcc aatcttataa acctggaggg
720
gagccatttt acaccatttt tagttgggtc gtacttagaa ttttcttgag aaaggttttt
780

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tttttattgt agcaatgaac ataatttaca ttttgtatat ggtcttcaa tgtagaataa
 840
 ttttgacagg ttgagaagta ctcagcacca gcttgaatt aagttctaga tctactgcaa
 900
 agagttgtgt acataatttt aaaaacaaca aaaaacaaca aagcttctag cttacgggtc
 960
 tcagtggtgt tttttctctc cagtggtggg tactgaatca ttctggatgc tgtcaatccc
 1020
 taaagttatc aattgctctc ttaggaagat ct
 1052

<210> 3674

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3674

Xaa Ile Ser Lys Ser Gly Leu Glu Lys Asn Ser Leu Ile Tyr Glu Leu
 1 5 10 15
 Phe Ser Val Met Val His Ser Gly Ser Ala Ala Gly Gly His Tyr Tyr
 20 25 30
 Ala Cys Ile Lys Ser Phe Ser Asp Glu Gln Trp Tyr Ser Phe Asn Asp
 35 40 45
 Gln His Val Ser Arg Ile Thr Gln Glu Asp Ile Lys Lys Thr His Gly
 50 55 60
 Gly Ser Ser Gly Ser Arg Gly Tyr Tyr Ser Ser Ala Phe Ala Ser Ser
 65 70 75 80
 Thr Asn Ala Tyr Met Leu Ile Tyr Arg Leu Lys Asp Pro Ala Arg Asn
 85 90 95
 Ala Lys Phe Leu Glu Val Asp Glu Tyr Pro Glu His Ile Lys Asn Leu
 100 105 110
 Val Gln Lys Glu Arg Glu Leu Glu Glu Lys Arg Gln Arg Glu
 115 120 125
 Ile Glu Arg Asn Thr Cys Lys Ile Lys Leu Phe Cys Leu His Pro Thr
 130 135 140
 Lys Gln Val Met Met Glu Asn Lys Leu Glu Val His Lys Asp Lys Thr
 145 150 155 160
 Leu Lys Glu Ala Val Glu Met Ala Tyr Lys Met Met Asp Leu Glu Glu
 165 170 175
 Val Ile Pro Leu Asp Cys Cys Arg Leu Val Lys Tyr Asp Glu Phe His
 180 185 190
 Asp Tyr Leu Glu Arg Ser Tyr Glu Gly Glu Glu Asp Thr Pro Met Gly
 195 200 205
 Leu Leu Leu Gly Gly Val Lys Ser Thr Tyr Met Phe Asp Leu Leu Leu
 210 215 220
 Glu Thr Arg Lys Pro Asp Gln Val Phe Gln Ser Tyr Lys Pro Gly Gly
 225 230 235 240
 Glu Pro Phe Tyr Thr Ile Phe Ser Trp Ser Val Leu Arg Ile Phe Leu
 245 250 255
 Arg Lys Val Phe Phe Leu Leu
 260

<210> 3675

<211> 837

<212> DNA

<213> Homo sapiens

<400> 3675

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nntccggaga tgtgaagaag gggggcgagc ggacaggaag atgaaggag caaagctgcc
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cgcccgggga caggcgtcta ggtgaacaag aaaatgaccg aagaaacaca ccacagacgat
120
gacagctata ttgtgcgtgt caaggctgtg gttatgacca gagatgactc cagcggggga
180
tggttcccac aggaaggagg cgggatcagt cgcgtcgggg tctgtaaggt catgcacccc
240
gaaggcaatg gacgaagcgg ctttctcatc catggtgaac gacagaaaga caaactgggtg
300
gtattggaat gctatgtaag aaaggacttg gtctacacca aagccaatcc aacgtttcat
360
cactggaagg tcgataatag gaagtcttga cttacttttc aaagccctgc tgatgcccgga
420
gcctttgaca ggggagtaag gaaagcaatc gaagacctta tagaagaagt agaaaatgat
480
tctggcgggc ccagaaggct cctggcctac ccactgtcct cctgtaatca gaggcccagg
540
gtgtcacagct gccactgaaa aggaaggaga tctgtgacct ctggagccct ggttcggttt
600
aggccttggt ctatgggtaa gtgagtagta ggcatttgtt tacatctgat cgtggcctgg
660
agggcccttg ggcagtcagt tctcatggtg ggcttgacta gagtccacag atgcaaacac
720
aaaaattctc cactgcagca catccagcta tcaaatcaga gggttaaaga agccatagac
780
agggccctgt gaagaaagaa atatcaagca aggcattgta ataccaaatt cagatctc
837

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<210> 3676

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3676

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Met Thr Glu Glu Thr His Pro Asp Asp Asp Ser Tyr Ile Val Arg Val
1      5      10      15
Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro
20     25     30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
35     40     45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
50     55     60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65     70     75     80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
85     90     95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
100    105    110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

```

```

          115          120          125
Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys
    130          135          140
Asn Gln Arg Pro Arg Val Tyr Ser Cys His
    145          150

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<210> 3677
 <211> 418
 <212> DNA
 <213> Homo sapiens

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<400> 3677
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120
tgccgaaga gcatggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc
180
tccttgtcac acacatcctg caaatcacag tcttgtggag atgactctca ttcgtcctcg
240
tcttctctct catcatctct atcctcgtcc tcctcttctt gccctgggaa ctcgggagagc
300
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<210> 3678
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 3678
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Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp
35      40      45
Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His
50      55      60
Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser
65      70      75      80
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly
85      90      95
Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu
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Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala
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<210> 3679
 <211> 567

<212> DNA

<213> Homo sapiens

<400> 3679

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<210> 3680

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3680

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 35 40 45
 Leu Glu Thr Ala Leu Lys Trp Arg Asn Tyr Glu Val Lys Leu Arg Leu
 50 55 60
 Leu Leu His Leu Glu Glu Leu Gln Met Glu His Asp Ile Arg His Tyr
 65 70 75 80
 Asp Leu Glu Ser Val Pro Met Thr Trp Asp Pro Val Asp Gln Asn Pro
 85 90 95
 Arg Leu Leu Thr Leu Glu Val Pro Gly Val Thr Glu Ser Arg Pro Ser
 100 105 110
 Val Leu Arg Gly Asp His Leu Phe Ala Leu Leu Ser Ser Glu Thr His
 115 120 125
 Gln Glu Asp Pro Ile Thr Tyr Lys Gly Phe Val His Lys Val Glu Leu
 130 135 140
 Asp Arg Val Lys Leu Ser Phe Ser Met Ser Leu Leu Ser Arg Phe Val
 145 150 155 160
 Asp Gly Leu Thr Phe Lys Val Asn Phe Thr Phe Asn Arg Gln Pro Leu
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 Arg Val Gln His Arg Ala Trp Glu Leu Thr Gly Arg Trp

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185

<210> 3681
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<400> 3681
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<210> 3682
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<400> 3682
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 Ile Ser Gly Arg Pro Cys Pro Gly Gly Pro Ala Pro Pro Arg His His
 35 40 45
 Gly Pro Pro Gly Pro Thr Phe Phe Arg Gln Gln Asp Gly Leu Leu Arg
 50 55 60
 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg
 65 70 75 80
 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg

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<210> 3684

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3684

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 Cys Lys Val Arg Leu Leu Asp Gly Gly Asp Phe Val Ser Leu Ser Ser
 35 40 45
 Arg Glu Glu Val Gln Glu Asn Cys Val Arg Trp Arg Lys Arg Phe Thr
 50 55 60
 Phe Val Cys Lys Met Ser Ala Asn Pro Ala Thr Gly Leu Leu Asp Pro
 65 70 75 80
 Cys Val Phe Arg Val Ser Val Arg Lys Glu Leu Lys Gly Gly Lys Ala
 85 90 95
 Tyr Ser Lys Leu Gly Phe Ala Asp Leu Asn Leu Ala Glu Phe Ala Gly
 100 105 110
 Ser Gly Ser Thr Val Arg Cys Cys Leu Leu Glu Gly Tyr Asp Thr Lys
 115 120 125
 Asn Thr Arg Gln Asp Asn Ser Ile Leu Lys Val Thr Ile Gly Met Phe
 130 135 140
 Leu Leu Ser Gly Asp Pro Cys Phe Lys Thr Pro Pro Ser Thr Ala Lys
 145 150 155 160
 Ser Ile Ser Ile Pro Gly Gln Asp Ser Ser Leu Gln Leu Thr Cys Lys
 165 170 175
 Gly Gly Gly Thr Ser Ser Gly Gly Ser Ser Thr Asn Ser Leu Thr Gly
 180 185 190
 Ser Arg Pro Pro Lys Ala Arg Pro Thr Ile Leu Ser Ser Gly Leu Pro
 195 200 205
 Glu Glu Pro Asp Gln Asn Leu Ser Ser Pro Glu Glu Val Phe His Ser
 210 215 220
 Gly His Ser Arg Asn Ser Ser Tyr Ala Ser Gln Gln Ser Lys Ile Ser
 225 230 235 240
 Gly Tyr Ser Thr Glu His Ser His Ser Ser Ser Leu Ser Asp Leu Thr
 245 250 255
 His Arg Arg Asn Thr Ser Thr Ser Ser Ser Ala Ser Gly Gly Leu Gly
 260 265 270
 Met Thr Val Glu Gly Pro Glu Gly Ser Glu Arg Glu His Arg Pro Pro
 275 280 285
 Glu Lys Pro Pro Arg Pro Pro Arg Pro Leu His Leu Ser Asp Arg Ser
 290 295 300
 Phe Arg Arg Lys Lys Asp Ser Val Glu Ser His Pro Thr Trp Val Asp
 305 310 315 320
 Asp Thr Arg Ile Asp Ala Asp Ala Ile Val Glu Lys Ile Val Gln Ser

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<210> 3686

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3686

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			20					25					30		
Pro	Val	Cys	Cys	Glu	Thr	Asp	His	Arg	Pro	Ala	Gln	Arg	Ser	Pro	Arg
			35				40					45			
Arg	Val	Pro	Cys	Leu	Cys	Pro	Pro	Arg	Arg	Arg	His	Pro	Pro	Arg	Ser
	50					55					60				
Phe	Thr	Ser	Cys	Thr	Phe	Ser	Gly	Ser	Arg	Ser	His	Ile	His	Pro	Thr
65					70				75					80	
Trp	Arg	Ser	Pro	His	Asp	Val	Pro	Gly	Ser	Val	Leu	Ala	Pro	Ala	Ala
				85				90						95	
Ala	Leu	Gly	Asn	Arg	Ile	Gly	Lys	Arg	Ser	Pro	Arg	Val	Asp	Ala	
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<210> 3687

<211> 566

<212> DNA

<213> Homo sapiens

<400> 3687

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<210> 3688

<211> 57
 <212> PRT
 <213> Homo sapiens

<400> 3688
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 Xaa Leu His Val Ser Ala Ala Pro His
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<210> 3689
 <211> 1562
 <212> DNA
 <213> Homo sapiens

<400> 3689
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<210> 3690

<211> 504

<212> PRT

<213> Homo sapiens

<400> 3690

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			20					25					30		
Thr	Asp	Glu	Ala	Glu	Lys	Arg	Ser	Arg	Lys	Pro	Glu	Lys	Glu	Pro	Arg
			35				40					45			
Arg	Ser	Gly	Arg	Ala	Thr	Asn	His	Asp	Ser	Cys	Asp	Ser	Cys	Lys	Glu
			50			55					60				
Gly	Gly	Asp	Leu	Leu	Cys	Cys	Asp	His	Cys	Pro	Ala	Ala	Phe	His	Leu
			65			70				75			80		
Gln	Cys	Cys	Asn	Pro	Pro	Leu	Ser	Glu	Glu	Met	Leu	Pro	Pro	Gly	Glu
			85					90					95		
Trp	Met	Cys	His	Arg	Cys	Thr	Val	Arg	Arg	Lys	Lys	Arg	Glu	Gln	Lys
			100					105					110		
Lys	Glu	Leu	Gly	His	Val	Asn	Gly	Leu	Val	Asp	Lys	Ser	Gly	Lys	Arg
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Thr	Thr	Ser	Pro	Ser	Ser	Asp	Thr	Asp	Leu	Leu	Asp	Arg	Ser	Ala	Ser
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Lys	Thr	Glu	Leu	Lys	Ala	Ile	Ala	His	Ala	Arg	Ile	Leu	Glu	Arg	Arg
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Ala	Ser	Arg	Pro	Gly	Thr	Pro	Thr	Ser	Ser	Ala	Ser	Thr	Glu	Thr	Pro
			165					170					175		
Thr	Ser	Glu	Gln	Asn	Asp	Val	Asp	Glu	Asp	Ile	Ile	Asp	Val	Asp	Glu
			180					185				190			
Glu	Pro	Val	Ala	Ala	Glu	Pro	Asp	Tyr	Val	Gln	Pro	Gln	Leu	Arg	Arg
			195			200					205				
Pro	Phe	Glu	Leu	Leu	Ile	Ala	Ala	Ala	Met	Glu	Arg	Asn	Pro	Thr	Gln

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 225 230 235 240
 Ser Lys Arg Arg Arg Lys Glu Glu Thr Thr Gly Lys Asn Val Lys Lys
 245 250 255
 Thr Gln His Glu Leu Asp His Asn Gly Leu Val Pro Leu Pro Val Lys
 260 265 270
 Val Cys Phe Thr Cys Asn Arg Ser Cys Arg Val Ala Pro Leu Ile Gln
 275 280 285
 Cys Asp Tyr Cys Pro Leu Leu Phe His Met Asp Cys Leu Glu Pro Pro
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 305 310 315 320
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 325 330 335
 Val Phe Asp Arg Phe Gln Asp Thr Val Ser Gln His Val Val Lys Val
 340 345 350
 Asp Phe Leu Asn Arg Ile His Lys Lys His Pro Pro Asn Arg Arg Val
 355 360 365
 Leu Gln Ser Val Lys Arg Arg Ser Leu Lys Val Pro Asp Ala Ile Lys
 370 375 380
 Ser Gln Tyr Gln Phe Pro Pro Pro Leu Ile Ala Pro Ala Ala Ile Arg
 385 390 395 400
 Asp Gly Glu Leu Ile Cys Asn Gly Ile Pro Glu Glu Ser Gln Met His
 405 410 415
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 420 425 430
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 435 440 445
 Ala Lys Gln Met Pro Ser His Trp Asp Ser Glu Gln Thr Glu Lys Ala
 450 455 460
 Asp Ile Lys Pro Val Ile Val Thr Asp Ser Ser Val Thr Thr Ser Leu
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<210> 3691

<211> 418

<212> DNA

<213> Homo sapiens

<400> 3691

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<210> 3692
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 3692
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 Arg Ile Ala Arg Ile Arg Cys Gln Leu Lys Ala Val Cys Gln Pro Arg
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<210> 3693
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<212> PRT

<213> Homo sapiens

<400> 3694

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 Arg Leu Pro Pro Pro Ala Arg Ser Pro Ala Pro Ala Gln Arg Pro Pro
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Ala Thr Ala Ile Ser Pro	Pro Leu Ser Val Ser Ala	Thr Ser Ser Pro
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3696

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 Phe Tyr Gln Ala Leu Asn Leu Ser Leu Pro Leu Pro Asn Phe His Ala
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 Gly Thr Glu Pro Asp Gly Leu Asp Pro Met Val Thr Leu Ser Leu Asn
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<210> 3697

<211> 550

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Lys His Gly Glu Cys Ile Gly Pro Asn Lys Cys Lys Cys His Pro Gly
 50 55 60
 Tyr Ala Gly Lys Thr Cys Asn Gln Asp Leu Asn Glu Cys Gly Leu Lys
 65 70 75 80
 Pro Arg Pro Cys Lys His Arg Cys Met Asn Thr Tyr Gly Ser Tyr Lys
 85 90 95
 Cys Tyr Cys Leu Asn Gly Tyr Met Leu Met Pro Asp Gly Ser Cys Ser
 100 105 110
 Ser Ala Leu Thr Cys Ser Met Ala Asn Cys Gln Tyr Gly Cys Asp Val
 115 120 125
 Val Lys Gly Gln Ile Arg Cys Gln Cys Pro Ser Pro Gly Leu Gln Leu
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 Ala Pro Asp Gly Arg Thr Cys Val Asp Val Asp Glu Cys Ala Thr Gly
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 <212> PRT
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 50 55 60
 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser
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<212> PRT

<213> Homo sapiens

<400> 3702

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<210> 3704

<211> 619

<212> PRT

<213> Homo sapiens

<400> 3704

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Leu	His	Leu	Leu	Lys	Ser	Ser	Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile
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Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
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Asp	Leu	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser
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Pro	Gly	Pro	Leu	Ala	Pro	Ile	Pro	Pro	Thr	Leu	Leu	Ala	Pro	Gly	Thr
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Leu	Leu	Gly	Pro	Lys	Arg	Glu	Val	Asp	Met	His	Pro	Pro	Leu	Pro	Gln
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Pro	Val	His	Pro	Asp	Val	Thr	Met	Lys	Pro	Leu	Pro	Phe	Tyr	Glu	Val
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Tyr	Gly	Glu	Leu	Ile	Arg	Pro	Thr	Thr	Leu	Ala	Ser	Thr	Ser	Ser	Gln
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Arg	Phe	Glu	Glu	Ala	His	Phe	Thr	Phe	Ala	Leu	Thr	Pro	Gln	Gln	Val
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Tyr	Thr	Ile	Gln	Val	Gln	Leu	Arg	Phe	Cys	Leu	Cys	Glu	Thr	Ser	Cys
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Pro	Gln	Glu	Asp	Tyr	Phe	Pro	Pro	Asn	Leu	Phe	Val	Lys	Val	Asn	Gly
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Lys	Leu	Cys	Pro	Leu	Pro	Gly	Tyr	Leu	Pro	Pro	Thr	Lys	Asn	Gly	Ala
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Asp His Ser Arg Ala Leu Ile Lys Glu Lys Leu Thr Ala Asp Pro Asp
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Gly Lys Met Arg Leu Thr Val Pro Cys Arg Ala Leu Thr Cys Ala His
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Asp Gly Leu Gln Tyr Ser Pro Val Gln Gly Gly Asp Pro Ser Glu Asn
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Lys Lys Lys Val Glu Val Ile Asp Leu Thr Ile Glu Ser Ser Ser Asp
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Glu Glu Asp Leu Pro Pro Thr Lys Lys His Cys Ser Val Thr Ser Ala
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Ala Ile Pro Ala Leu Pro Gly Ser Lys Gly Val Leu Thr Ser Gly His
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Gln Pro Ser Ser Val Leu Arg Ser Pro Ala Met Gly Thr Leu Gly Gly
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Glu Ser Gln His Tyr Gly Pro Ser Val Ile Thr Ser Leu Asp Glu Gln
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Asp Ala Leu Gly His Phe Phe Gln Tyr Arg Gly Thr Pro Ser His Phe
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Leu Gly Pro Leu Ala Pro Thr Leu Gly Ser Ser His Cys Ser Ala Thr
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Pro Ala Pro Pro Gly Arg Val Ser Ser Ile Val Ala Pro Gly Gly
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Thr Gly Cys Arg Ser Asp Ile Ile Ser Leu Asp
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<210> 3705

<211> 1737

<212> DNA

<213> Homo sapiens

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 Ala Gly Thr Glu Ala Gly Arg Val Gly Gly Val Thr Val Glu Gln Gly
 50 55 60
 Lys Ser Leu Ile Asn Tyr Glu Pro His Gly Thr Arg Thr Ala Gly Phe
 65 70 75 80
 Thr Ala His Pro Pro Lys Ser Thr Ser Val Cys Val Cys Xaa Arg Gln
 85 90 95
 His Ile Cys Thr Cys Val Cys Met Cys Val Arg Lys Cys Val Pro Arg
 100 105 110
 Gln His Ile Cys Met Cys Ala Cys Val Cys Ile Arg Thr Ala Ile Cys
 115 120 125
 Thr Cys Val His Val Gln Thr Ala Tyr Leu Cys Thr Cys Val Cys Pro
 130 135 140
 Gly Asn Ile Cys Thr Cys Val Ser Val Glu Ala Ala Leu Ser Val Cys
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 <213> Homo sapiens

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 <211> 106
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 Glu Asn Ala Phe Asp Asn Ile Gln Leu Pro Tyr Met Ile Lys Thr Leu
 35 40 45
 Lys Lys Leu Gly Ile Glu Gly Met Tyr Leu Asn Val Ile Lys Ala Val
 50 55 60
 Tyr Asp Arg Pro Xaa Val Ser Ile Ile Leu Asn Gly Glu Asn Leu Gln
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<210> 3709
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<210> 3710

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3710

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			20					25					30		
Cys	Asp	Val	Ile	Leu	Val	Ala	Gly	Asp	Arg	Arg	Ile	Pro	Ala	His	Arg
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Leu	Val	Leu	Ser	Ser	Val	Ser	Asp	Tyr	Phe	Ala	Ala	Met	Phe	Thr	Asn
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<210> 3711

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 3711

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<210> 3712

<211> 368

<212> PRT

<213> Homo sapiens

<400> 3712

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 Leu Gly Arg Gly Phe Asn Thr Gly Val Ile Leu Leu Arg Leu Asp Arg
 35 40 45
 Leu Arg Gln Ala Gly Trp Glu Gln Met Trp Arg Leu Thr Ala Arg Arg
 50 55 60
 Glu Leu Leu Ser Leu Pro Ala Ala Ser Leu Ala Asp Gln Asp Ile Phe
 65 70 75 80
 Asn Ala Val Ile Lys Glu His Pro Gly Leu Val Gln Arg Leu Pro Cys
 85 90 95
 Val Trp Asn Val Gln Leu Ser Asp His Thr Leu Ala Glu Arg Cys Tyr
 100 105 110
 Ser Glu Ala Ser Asp Leu Lys Val Ile His Trp Asn Ser Pro Lys Lys
 115 120 125
 Leu Arg Val Lys Asn Lys His Val Glu Phe Phe Arg Asn Phe Tyr Leu
 130 135 140
 Thr Phe Leu Glu Tyr Asp Gly Asn Leu Leu Arg Arg Glu Leu Phe Val
 145 150 155 160
 Cys Pro Ser Gln Pro Pro Pro Gly Ala Glu Gln Leu Gln Gln Ala Leu
 165 170 175
 Ala Gln Leu Asp Glu Glu Asp Pro Cys Phe Glu Phe Arg Gln Gln Gln
 180 185 190
 Leu Thr Val His Arg Val His Val Thr Phe Leu Pro His Glu Pro Pro
 195 200 205
 Pro Pro Arg Pro His Asp Val Thr Leu Val Ala Gln Leu Ser Met Asp
 210 215 220
 Arg Leu Gln Met Leu Glu Ala Leu Cys Arg His Trp Pro Gly Pro Met

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		245		250		255
Phe	Val	Glu	Ala	Ser	Pro	Val
		260		265		270
His	Val	Val	Tyr	Arg	Glu	Gly
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Asn	Val	Ala	Leu	Ala	Gln	Ala
		290		295		300
Ile	Asp	Phe	Leu	Pro	Ala	Tyr
		305		310		315
Ile	Glu	Gln	Leu	Gly	Leu	Gly
		325		330		335
Pro	Ala	Phe	Glu	Thr	Leu	Arg
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Val	Glu	Leu	Leu	Ala	Leu	Leu
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<210> 3713

<211> 1719

<212> DNA

<213> Homo sapiens

<400> 3713

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900

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<210> 3714

<211> 488

<212> PRT

<213> Homo sapiens

<400> 3714

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 Ser Glu Asn Glu Thr Ser Asp Arg Glu Asp Gly Pro Pro Lys Gly His
 50 55 60
 His Val Thr Asp Ser Glu Asn Asp Glu Pro Leu Asn Leu Asn Ala Ser
 65 70 75 80
 Asp Ser Glu Ser Glu Glu Leu His Arg Gln Lys Asp Ser Asp Ser Glu
 85 90 95
 Ser Glu Glu Arg Ala Glu Pro Pro Ala Ser Asp Ser Glu Asn Glu Asp
 100 105 110
 Val Asn Gln His Gly Ser Asp Ser Glu Ser Glu Glu Thr Arg Lys Leu
 115 120 125
 Pro Gly Ser Asp Ser Glu Asn Glu Glu Leu Leu Asn Gly His Ala Ser
 130 135 140
 Asp Ser Glu Asn Glu Asp Val Gly Lys His Pro Ala Ser Asp Ser Glu

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145          150          155          160
Ile Glu Glu Leu Gln Lys Ser Pro Ala Ser Asp Ser Glu Thr Glu Asp
165          170          175
Ala Leu Lys Pro Gln Ile Ser Asp Ser Glu Ser Glu Glu Pro Pro Arg
180          185          190
His Gln Ala Ser Asp Ser Glu Asn Glu Glu Pro Pro Lys Pro Arg Met
195          200          205
Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
210          215          220
Glu Ser Glu Glu Pro Pro Arg His Gln Ala Ser Asp Ser Glu Asn Glu
225          230          235          240
Glu Leu Pro Lys Pro Arg Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro
245          250          255
Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
260          265          270
Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro Arg Asn Gln Ala Ser Asp
275          280          285
Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg Val Ser Asp Ser Glu Ser
290          295          300
Glu Gly Pro Gln Lys Gly Pro Ala Ser Asp Ser Glu Thr Glu Asp Ala
305          310          315          320
Ser Arg His Lys Gln Lys Pro Glu Ser Asp Asp Ser Asp Arg Glu
325          330          335
Asn Lys Gly Glu Asp Thr Glu Met Gln Asn Asp Ser Phe His Ser Asp
340          345          350
Ser His Met Asp Arg Lys Lys Phe His Ser Ser Asp Ser Glu Glu Glu
355          360          365
Glu His Lys Lys Gln Lys Met Asp Ser Asp Glu Asp Glu Lys Glu Gly
370          375          380
Glu Glu Glu Lys Val Ala Lys Arg Lys Ala Ala Val Leu Ser Asp Ser
385          390          395          400
Glu Asp Glu Glu Lys Ala Ser Ala Lys Lys Ser Arg Val Val Ser Asp
405          410          415
Ala Asp Asp Ser Asp Ser Asp Ala Val Ser Asp Lys Ser Gly Lys Arg
420          425          430
Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
435          440          445
Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
450          455          460
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<210> 3715

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3715

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120

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cacttgagaga aacatcgaaa ggacaaagcc cacaaacgct atctgctaag gacgattgac
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 288

<210> 3716
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 3716
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 Gly Lys Ile Arg Ser Tyr Glu Glu His Leu Glu Lys His Arg Lys Asp
 35 40 45
 Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile Asp Gln Arg Lys Lys
 50 55 60
 Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp Val Phe Glu Lys Ile
 65 70 75 80
 Cys Trp Gly Leu Gly Ile Glu Tyr Thr Phe Pro Pro Leu Tyr Tyr Arg
 85 90 95

<210> 3717
 <211> 1545
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 ggcctgatct gattttttaa cttcatccct aggtattgata ttgctgatga tattattaat
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 gccagtgaag gtaacagaga ctgttcaaaa cctgtggcta gcactaatat agacaatgaa
 420
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 480
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 720
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 780
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<210> 3718

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3718

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 20 25 30
 Cys Leu Glu Arg Glu Glu Tyr Leu Leu Phe Asp Ser Asp Lys Leu Ser
 35 40 45
 His Leu Ile Leu Asp Ser Ser Ser Lys Ile Cys Asp Leu Asn Ala Asn
 50 55 60
 Thr Glu Ser Glu Val Pro Gly Gly Gln Ser Val Gly Val Gln Gly Glu
 65 70 75 80
 Ala Ala Cys Val Ser Ile Pro His Leu Asp Leu Lys Asn Val Ser Asp
 85 90 95
 Gly Asp Lys Trp Glu Glu Pro Phe Pro Ala Phe Lys Ser Trp Gln Glu
 100 105 110
 Asp Ser Glu Ser Gly Glu Ala Gln Leu Ser Pro Gln Ala Gly Arg Met
 115 120 125
 Asn His His Pro Leu Glu Glu Asp Cys Pro Pro Val Leu Ser His Arg

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130          135          140
Ser Leu Asp Phe Gly Gln Ser Gln Arg Phe Leu His Asp Pro Glu Lys
145          150          155          160
Leu Asp Ser Ser Ser Lys Ala Leu Ser Phe Thr Arg Ile Arg Arg Ser
165
Ser Phe Ser Ser Lys Asp Glu Lys Arg Glu Asp Arg Thr Pro Tyr Gln
180          185          190
Leu Val Lys Lys Leu Gln Lys Lys Ile Arg Gln Phe Glu Glu Gln Phe
195          200          205
Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn
210          215          220
Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln
225          230          235          240
Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln
245          250          255
Thr Arg Pro Arg Ser Asn Thr Leu Pro Lys Ser Phe Gly Ser Ser Leu
260          265          270
Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys
275          280          285
Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg
290          295          300
Leu Lys Glu Lys Arg Ile Glu Arg Cys Leu Pro Glu Asp Ile Lys Lys
305          310          315          320
Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser
325          330          335
Leu Leu Tyr Tyr Glu Ser Gln His Gly Arg Pro Val Thr Lys Glu Glu
340          345          350
Arg His Ile Val Lys Pro Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln
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Met Leu Thr Arg Ala Ser
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<210> 3719

<211> 422

<212> DNA

<213> Homo sapiens

<400> 3719

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422

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<210> 3720

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3720

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 20          25          30
Asn Gln Lys Lys Phe Glu Cys Asn Ser Arg Gln Pro Gly Cys Lys Asn
 35          40          45
Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala
 50          55          60
Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Leu Val Val Leu His
 65          70          75          80
Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr
 85          90          95
Val Ser Pro Gly Thr Met Asp Gly Gly Leu Trp Tyr Ala Tyr Leu Ile
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Ser Leu Ile Val Lys Thr Gly Phe Glu Thr
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<210> 3721

<211> 4728

<212> DNA

<213> Homo sapiens

<400> 3721

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cccaccgaca tggctcgccg gcagcagaag atcagcaaac agcagctgca gacagtcagg
180
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240
aacgctgtgc agagtacta tgaggtgttc ctgaagagcg accgtgtggc cgcgatgggt
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gcagacccaa tagccaggga acgcaaatcc cccaagtttg tatccaaaga aatggaaaac
720

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<210> 3722

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 3722

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 Ala Tyr Pro Phe Asn Ala Lys Gln Pro Thr Asp Met Ala Arg Arg Gln
 35 40 45
 Gln Lys Ile Ser Lys Gln Gln Leu Gln Thr Val Lys Asp Arg Phe Gln
 50 55 60
 Ala Phe Leu Asn Gly Glu Thr Gln Ile Met Ala Asp Glu Ala Phe Met
 65 70 75 80
 Asn Ala Val Gln Ser Tyr Tyr Glu Val Phe Leu Lys Ser Asp Arg Val
 85 90 95
 Ala Arg Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Ser Arg Glu
 100 105 110
 Val Phe Lys Lys His Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile
 115 120 125
 Asp Gly Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Met Ala Lys Phe
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 Asp Ala Ile Tyr Arg Gly Glu Glu Asp Pro Arg Lys Gln Gln Ala Arg
 145 150 155 160
 Met Thr Ala Ser Ala Ala Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu

[illegible]

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Gly	Trp	Phe	Ser	Pro	Gly	Gln	Val	Phe	Val	Leu	Asp	Glu	Tyr	Cys	Ala
610						615					620				
Arg	Asn	Gly	Val	Arg	Gly	Cys	His	Arg	His	Leu	Cys	Tyr	Leu	Arg	Asp
625					630					635					640
Leu	Leu	Glu	Arg	Ala	Glu	Asn	Gly	Ala	Met	Ile	Asp	Pro	Thr	Leu	Leu
				645					650					655	
His	Tyr	Ser	Phe	Ala	Phe	Cys	Ala	Ser	His	Val	His	Gly	Asn	Arg	Pro
			660					665				670			
Asp	Gly	Ile	Gly	Thr	Val	Thr	Val	Glu	Glu	Lys	Glu	Arg	Phe	Glu	Glu
		675				680					685				
Ile	Lys	Glu	Arg	Leu	Arg	Val	Leu	Leu	Glu	Asn	Gln	Ile	Thr	His	Phe
690					695					700					
Arg	Tyr	Cys	Phe	Pro	Phe	Gly	Arg	Pro	Glu	Gly	Ala	Leu	Lys	Ala	Thr
705				710					715					720	
Leu	Ser	Leu	Leu	Glu	Arg	Val	Leu	Met	Lys	Asp	Ile	Val	Thr	Pro	Val
			725					730						735	
Pro	Gln	Glu	Glu	Val	Lys	Thr	Val	Ile	Arg	Lys	Cys	Leu	Glu	Gln	Ala
			740					745				750			
Ala	Leu	Val	Asn	Tyr	Ser	Arg	Leu	Ser	Glu	Tyr	Ala	Lys	Ile	Glu	Glu
		755				760					765				
Asn	Gln	Lys	Asp	Ala	Glu	Asn	Val	Gly	Arg	Leu	Ile	Thr	Pro	Ala	Lys
770				775						780					
Lys	Leu	Glu	Asp	Thr	Ile	Arg	Leu	Ala	Glu	Leu	Val	Ile	Glu	Val	Leu
785				790					795					800	
Gln	Gln	Asn	Glu	Glu	His	His	Ala	Glu	Pro	His	Val	Asp	Lys	Gly	Glu
			805					810						815	
Ala	Phe	Ala	Trp	Trp	Ser	Asp	Leu	Met	Val	Glu	His	Ala	Glu	Thr	Phe
			820					825					830		
Leu	Ser	Leu	Phe	Ala	Val	Asp	Met	Asp	Ala	Ala	Leu	Glu	Val	Gln	Pro
		835				840					845				
Pro	Asp	Thr	Trp	Asp	Ser	Phe	Pro	Leu	Phe	Gln	Leu	Leu	Asn	Asp	Phe
850					855						860				
Leu	Arg	Thr	Asp	Tyr	Asn	Leu	Cys	Asn	Gly	Lys	Phe	His	Lys	His	Leu
865				870					875					880	
Gln	Asp	Leu	Phe	Ala	Pro	Leu	Val	Val	Arg	Tyr	Val	Asp	Leu	Met	Glu
			885					890						895	
Ser	Ser	Ile	Ala	Gln	Ser	Ile	His	Arg	Gly	Phe	Glu	Arg	Glu	Ser	Trp
		900						905				910			
Glu	Pro	Val	Asn	Asn	Gly	Ser	Gly	Thr	Ser	Glu	Asp	Leu	Phe	Trp	Lys
		915				920					925				
Leu	Asp	Ala	Leu	Gln	Thr	Phe	Ile	Arg	Asp	Leu	His	Trp	Pro	Glu	Glu
		930				935					940				
Glu	Phe	Gly	Lys	His	Leu	Glu	Gln	Arg	Leu	Lys	Leu	Met	Ala	Ser	Asp
945				950					955					960	
Met	Ile	Glu	Ser	Cys	Val	Lys	Arg	Thr	Arg	Ile	Ala	Phe	Glu	Val	Lys
			965					970						975	
Leu	Gln	Lys	Thr	Ser	Arg	Ser	Thr	Asp	Phe	Arg	Val	Pro	Gln	Ser	Ile
		980						985					990		
Cys	Thr	Met	Phe	Asn	Val	Met	Val	Asp	Ala	Lys	Ala	Gln	Ser	Thr	Lys
		995				1000					1005				
Leu	Cys	Ser	Met	Glu	Met	Gly	Gln	Glu	Phe	Ala	Lys	Met	Trp	His	Gln
1010						1015					1020				
Tyr	His	Ser	Lys	Ile	Asp	Glu	Leu	Ile	Glu	Glu	Thr	Val	Lys	Glu	Met

1025	1030										1035										1040									
Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu																														
1045										1050										1055										
Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu																														
1060										1065										1070										
Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro																														
1075										1080										1085										
Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln																														
1090										1095										1100										
Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu																														
1105										1110										1115										
Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu																														
1125										1130										1135										
Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu																														
1140										1145										1150										
Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val																														
1155										1160										1165										
Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg																														
1170										1175										1180										
Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Leu																														
1185										1190										1195										
Gln Gly Ile Ser Met Lys Asp Ser Asp Glu Glu Asp Glu Glu Asp Asp																														
1205										1210										1215										

<210> 3723

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3723

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ttgtgtcaaca ccaccgggca ttgtgtgaag atcattgact ttggcctggc acggagggtat
120
aaccccaacg agaagctgaa ggtgaacttt gggaccccaag agttcctctg acctgaggtg
180
gtgaattatg accaaatctc cgataagaca gacatgtgga gtatgggggt gatcacctac
240
atgctgctga cgccctctc ccccttctg ggagatgatg acacagagac cetaaacaac
300
gttctatctg caactggta ctttgatgaa gagaccttgg agggcgtatc agacagggcc
360
aaagactttg tctccaacct catcgtcaag gaccagaggg cccggatgaa cgctgccag
420
tctctgcccc atccttggtt caaacaacct ggggagaaag ccaaaccgtg taaccgacgc
480
cttaagtccc agatcttgct taagaaatac ctcatgaaga ggcgtggtaa gaaaaacttc
540
attgctgtca ggcgtgccaa ccgcttcaag aagatcagca gctcgggggc actgatggct
600
ctgggggtct gagccctggg cgcagctgaa gcctggacgc agccacacag ttggcggggc
660
tgaagccaca cagcccagaa ggccagaaaa ggcagccaga tccccgggc agcctcgtta
720

ggacaaggct gtcaggct gggaggctcg gggctcccca cgcgccatg cagtaccgc
 780
 ttccccgatg tgagccgcct cggagtgtgg cctggatcca tctgtctagc
 830

<210> 3724

<211> 203

<212> PRT

<213> Homo sapiens

<400> 3724

Ile	Leu	Leu	Met	His	Lys	Met	Arg	Val	Leu	His	Leu	Asp	Leu	Lys	Pro
1				5					10					15	
Glu	Asn	Ile	Leu	Cys	Val	Asn	Thr	Thr	Gly	His	Leu	Val	Lys	Ile	Ile
		20						25					30		
Asp	Phe	Gly	Leu	Ala	Arg	Arg	Tyr	Asn	Pro	Asn	Glu	Lys	Leu	Lys	Val
	35						40					45			
Asn	Phe	Gly	Thr	Pro	Glu	Phe	Leu	Ser	Pro	Glu	Val	Val	Asn	Tyr	Asp
	50					55					60				
Gln	Ile	Ser	Asp	Lys	Thr	Asp	Met	Trp	Ser	Met	Gly	Val	Ile	Thr	Tyr
	65				70					75				80	
Met	Leu	Leu	Ser	Gly	Leu	Ser	Pro	Phe	Leu	Gly	Asp	Asp	Asp	Thr	Glu
				85					90				95		
Thr	Leu	Asn	Asn	Val	Leu	Ser	Gly	Asn	Trp	Tyr	Phe	Asp	Glu	Glu	Thr
			100					105					110		
Phe	Glu	Ala	Val	Ser	Asp	Glu	Ala	Lys	Asp	Phe	Val	Ser	Asn	Leu	Ile
	115					120					125				
Val	Lys	Asp	Gln	Arg	Ala	Arg	Met	Asn	Ala	Ala	Gln	Cys	Leu	Ala	His
	130					135					140				
Pro	Trp	Leu	Asn	Asn	Leu	Ala	Glu	Lys	Ala	Lys	Arg	Cys	Asn	Arg	Arg
	145				150					155				160	
Leu	Lys	Ser	Gln	Ile	Leu	Leu	Lys	Lys	Tyr	Leu	Met	Lys	Arg	Arg	Trp
			165						170					175	
Lys	Lys	Asn	Phe	Ile	Ala	Val	Ser	Ala	Ala	Asn	Arg	Phe	Lys	Lys	Ile
		180						185					190		
Ser	Ser	Ser	Gly	Ala	Leu	Met	Ala	Leu	Gly	Val					
		195					200								

<210> 3725

<211> 1244

<212> DNA

<213> Homo sapiens

<400> 3725

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 120
 gaccatcttc acttttgttt tcaggcccttt aaaattgtgc cctacaacac agagaccctt
 180
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt
 240
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc
 300


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accctgttgc attttgctgc gaagtatgga ctgaagaacc tcactgcctt gttgctcacc
360
tgcccaggag ccttgaggc gtacagcgtg gccacaagc atggccacta ccccaacacc
420
atcgctgaga aacacggctt cagggacctg cggcagttca tcgacagta tgtggaacg
480
gtggacatgc tcaagagtca cattaagag gaactgatgc acggggagga ggctgatgct
540
gtgtacgagt ccatggccca cctttccaca gacctgctta tgaatgctc gctcaacccc
600
ggctgtgacg aggatctcta tgagtccatg gctgcctttg tcccagctgc cactgaagac
660
ctctatgttg aaatgcttca ggcagttaca tctaaccaca tccctggaga tggtttctct
720
cgggccacta aggactctat gatccgcaag tttttagaag gcaacagcat gggaatgacc
780
aatctggaga gagatcagtg ccatcttggt caggaagaag atgtttatca cacgtgggat
840
gacgatgagg ccttttctgt ggaactggcc agcaggcccc ctgtcccagt gccagacca
900
gagaccactg ctctcgggtg tcaccagctg cctgacaacg aaccatacat ttttaaggc
960
aagtatggca gggaatgatg tccaactggt tctttggagc ttctcaacag ggatttctctg
1020
gatgaccttg ctttttgaac cattgctcag agactatccc ctctaaatg gtcttcaccc
1080
agccctacga gacaggggtc atatcctggg gccagattct ggagctagaa taggagtaat
1140
gaccagagtc agtgctggcc ttccctggaag tatttacgca cagttgcaaa ggcaggtaaa
1200
caagaccctt gatataatgt tatctcctga accccttcac gcgt
1244

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<210> 3726

<211> 325

<212> PRT

<213> Homo sapiens

<400> 3726

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Xaa Ile His Val Ser Gly Lys Asp Ile Thr Arg Lys Pro Glu Ile Ser
 1             5             10             15
Gly His Val Ile Ser Ala His Gly Leu Ser Val Leu Asn Leu Arg Asp
          20             25             30
Gly Arg Glu Leu Asp Phe Arg Ser Asp His Leu His Phe Cys Phe Gln
          35             40             45
Ala Phe Lys Ile Val Pro Tyr Asn Thr Glu Thr Leu Asp Lys Leu Leu
          50             55             60
Thr Glu Ser Leu Lys Asn Asn Ile Pro Ala Ser Gly Leu His Leu Phe
          65             70             75             80
Gly Ile Asn Gln Leu Glu Glu Asp Met Met Thr Asn Gln Arg Asp
          85             90             95
Glu Glu Leu Pro Thr Leu Leu His Phe Ala Ala Lys Tyr Gly Leu Lys
          100            105            110
Asn Leu Thr Ala Leu Leu Leu Thr Cys Pro Gly Ala Leu Gln Ala Tyr

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      115              120              125
Ser Val Ala Asn Lys His Gly His Tyr Pro Asn Thr Ile Ala Glu Lys
  130              135              140
His Gly Phe Arg Asp Leu Arg Gln Phe Ile Asp Glu Tyr Val Glu Thr
  145              150              155
Val Asp Met Leu Lys Ser His Ile Lys Glu Glu Leu Met His Gly Glu
      165              170              175
Glu Ala Asp Ala Val Tyr Glu Ser Met Ala His Leu Ser Thr Asp Leu
      180              185              190
Leu Met Lys Cys Ser Leu Asn Pro Gly Cys Asp Glu Asp Leu Tyr Glu
      195              200              205
Ser Met Ala Ala Phe Val Pro Ala Ala Thr Glu Asp Leu Tyr Val Glu
      210              215              220
Met Leu Gln Ala Ser Thr Ser Asn Pro Ile Pro Gly Asp Gly Phe Ser
      225              230              235
Arg Ala Thr Lys Asp Ser Met Ile Arg Lys Phe Leu Glu Gly Asn Ser
      245              250              255
Met Gly Met Thr Asn Leu Glu Arg Asp Gln Cys His Leu Gly Gln Glu
      260              265              270
Glu Asp Val Tyr His Thr Val Asp Asp Asp Glu Ala Phe Ser Val Asp
      275              280              285
Leu Ala Ser Arg Pro Pro Val Pro Val Pro Arg Pro Glu Thr Thr Ala
      290              295              300
Pro Gly Ala His Gln Leu Pro Asp Asn Glu Pro Tyr Ile Phe Lys Gly
      305              310              315              320
Lys Tyr Gly Arg Glu
      325

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<210> 3727

<211> 630

<212> DNA

<213> Homo sapiens

<400> 3727

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actcgcccca ccccaactggt gactgcgggg ccccttgtga ccccaactcc agcaggggacc
120
ctcgaccctcg ctgagaaaca agaaacaggc tgtctcctt tgggtcttga gtccctgcga
180
gtttcagata gccggcttga ggcattccagc agccagtcct ttggtcttgg accacaccga
240
ggacggctca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctggtgt
300
gctgaggagc aggacgccga tccatggttt cagggtggacg ctggggcacc caccgccttc
360
tcgggtgtta tcacacaggc caggaactct gtctggaggt atgactgggt cacatcatac
420
aagggtccagt tcagcaatga cagtcggacc tgggtgggaa gtaggaaacca cagcagtggtg
480
atggagcgag tatttctctc caattcagac ccagaaactc cagtgtctgaa cctcctgccg
540
gagccccagg tggcccgctt cattcgcttg ctgccccaga cctggctcca gggaggcgcg
600

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ccttgccctcc gggcagagat cctggcctgc
630

<210> 3728

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3728

Arg	Ile	Arg	Val	Ile	Lys	Lys	Lys	Lys	Val	Ile	Met	Lys	Lys	Arg	Lys
1				5					10					15	
Lys	Leu	Thr	Leu	Thr	Arg	Pro	Thr	Pro	Leu	Val	Thr	Ala	Gly	Pro	Leu
			20					25					30		
Val	Thr	Pro	Thr	Pro	Ala	Gly	Thr	Leu	Asp	Pro	Ala	Glu	Lys	Gln	Glu
			35				40					45			
Thr	Gly	Cys	Pro	Pro	Leu	Gly	Leu	Glu	Ser	Leu	Arg	Val	Ser	Asp	Ser
	50					55				60					
Arg	Leu	Glu	Ala	Ser	Ser	Ser	Gln	Ser	Phe	Gly	Leu	Gly	Pro	His	Arg
65				70					75					80	
Gly	Arg	Leu	Asn	Ile	Gln	Ser	Gly	Leu	Glu	Asp	Gly	Asp	Leu	Tyr	Asp
			85						90					95	
Gly	Ala	Trp	Cys	Ala	Glu	Glu	Gln	Asp	Ala	Asp	Pro	Trp	Phe	Gln	Val
			100					105					110		
Asp	Ala	Gly	His	Pro	Thr	Arg	Phe	Ser	Gly	Val	Ile	Thr	Gln	Gly	Arg
			115				120					125			
Asn	Ser	Val	Trp	Arg	Tyr	Asp	Trp	Val	Thr	Ser	Tyr	Lys	Val	Gln	Phe
			130				135					140			
Ser	Asn	Asp	Ser	Arg	Thr	Trp	Trp	Gly	Ser	Arg	Asn	His	Ser	Ser	Gly
145				150					155					160	
Met	Asp	Ala	Val	Phe	Pro	Ala	Asn	Ser	Asp	Pro	Glu	Thr	Pro	Val	Leu
			165						170				175		
Asn	Leu	Leu	Pro	Glu	Pro	Gln	Val	Ala	Arg	Phe	Ile	Arg	Leu	Leu	Pro
			180					185					190		
Gln	Thr	Trp	Leu	Gln	Gly	Gly	Ala	Pro	Cys	Leu	Arg	Ala	Glu	Ile	Leu
			195				200						205		

Ala Cys
210

<210> 3729

<211> 1552

<212> DNA

<213> Homo sapiens

<400> 3729

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cctcctccgc gctcgcgggc atggagtaga aagggaccgc ggaagccga aagcgaaggc
120
atcaagttat cagcagatgt caaaccattt gtccccagat ttgccgggct caatgtggca
180
tggttagagt cctcagaagc atgtgtcttc ccagctctcg cagccacata ctatccgttt
240
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttggagct
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct
 360
 ccttatatacc ttgactccac acagaatggt tactcagtg cctggctccca gtatctttat
 420
 aaccaaccca gttgttaccg aggttttcaa acagtgaagc atcgaaatga gaacacatgc
 480
 cctctccccc aagaatgaa agctctgttt aagaagaaaa cctatgatga gaaaaaacg
 540
 tatgatcagc aaaagtttga cagtgaagg gctgatgaa ctatatcatc tgagataaaa
 600
 tcagctagag gttcacatca ttgtccatt tacgctgaga atagtgtgaa atcagatggt
 660
 taccataagc gaacagacag gaaatccaga atcattgcaa aaatgtatc tacctccaaa
 720
 cctgagtttg aatttaccac actggacttt cctgaactgc aagggtcaga gaacaatatg
 780
 tcagagatac agaagcaacc caagtgggga cctgtccact ctgtctctac cgacatttct
 840
 cttctaagag aagtagtaaa accagctgca gtgttatcaa aggggtgaaat agtgggtgaa
 900
 aataacccaa atgaatctgt aactgctaata gccgctacca attctccttc atgtacaaga
 960
 gagttatctt ggacaccaat gggttatggt gttcgacaga cattatctac agaactgtca
 1020
 gcagccccc aaaaatttac ttctatgata aacttaaaaa ccattgcttc atcagcagat
 1080
 cctaaaaaatg ttagtatacc atcttctgaa gctttatctt cggatccttc ctacaacaaa
 1140
 gaaaaacaca ttattcatcc tacccaaaag tctaaagcat cacaaggtag tgaccttgaa
 1200
 caaaatgaag cctcaagaaa gaataagaaa aagaagaaa aatctacatc aaaatgtaa
 1260
 gtcttgacag ttcaagagcc tccaaggatt gaagatgcc aggaatttcc caacctggca
 1320
 gttgcatctg aaagaagaga cagaatagag acaccgaaat ttcaatctaa gcagcagcca
 1380
 caggataatt taaaaataa tgtaagaag agccagcttc cagtgcagtt ggactggggg
 1440
 ggcattgctg cagccctgga gaagaagcag cactctcagc atgcaaagca gtccctccaa
 1500
 ccagtggttag tctcagttgg agcagtgcca gtcccttcca aagaatgtgc ac
 1552

<210> 3730

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3730

Met Ala Phe Gly Ala Ser Thr Phe Pro Pro Gln Tyr Leu Ser Ser Glu
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 Ile Thr Leu His Pro Tyr Ala Tyr Ser Pro Tyr Thr Leu Asp Ser Thr
 20 25 30
 Gln Asn Val Tyr Ser Val Pro Gly Ser Gln Tyr Leu Tyr Asn Gln Pro

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      35              40              45
Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg Asn Glu Asn Thr
  50              55              60
Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr
  65              70              75              80
Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala
      85              90              95
Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His
  100              105              110
Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys
  115              120              125
Arg Thr Asp Arg Lys Ser Arg Ile Ala Lys Asn Val Ser Thr Ser
  130              135              140
Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro Glu Leu Gln Gly
  145              150              155              160
Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro Lys Trp Gly Pro
      165              170              175
Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg Glu Val Val Lys
  180              185              190
Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val Lys Asn Asn Pro
  195              200              205
Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser Pro Ser Cys Thr
  210              215              220
Arg Glu Leu Ser Trp Thr Thr Pro Met Gly Tyr Val Val Arg Gln Thr Leu
  225              230              235              240
Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr Ser Met Ile Asn
      245              250              255
Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn Val Ser Ile Pro
  260              265              270
Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn Lys Glu Lys His
  275              280              285
Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln Gly Ser Asp Leu
  290              295              300
Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys Lys Glu Lys Ser
  305              310              315              320
Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro Pro Arg Ile Glu
      325              330              335
Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser Glu Arg Arg Asp
  340              345              350
Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln Pro Gln Asp Asn
  355              360              365
Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val Gln Leu Asp Leu
  370              375              380
Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His Ser Gln His Ala
  385              390              395              400
Lys Gln Ser Ser Lys Pro Val Val Val Ser Val Gly Ala Val Pro Val
      405              410              415
Leu Ser Lys Glu Cys Ala
      420

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<210> 3731

<211> 1704

<212> DNA

<213> Homo sapiens

<400> 3731
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120
tgtgcagtgc tgcctccagc atcactgttc gtcaatagtc acccaggaat agaccggcct
180
ggcatgtctt cgactttccg gatccctggg gcctgggtcct gtgcctgggc cctgaatatc
240
caagcaataa actgcttcag tacaggcttg tctcggcggg tctgttgac caacgtgggtg
300
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360
atggctcctc tgctgtttta tggctgccgc tctggggaaa tctttgccat tgatctgcgt
420
tgtggaaatc aaggcaaggg atggaaggcc acccgctgtt ttcattgatt agcagtgcac
480
tctgtgcgga tctccaaga tgagcaatac ctgatggcct cagacatggc tggaaagatc
540
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600
tacgcctacc tgcccctgca tgtgcacgag gaagaaggaa tctgtgtggc agtggggcag
660
gactgctaca cgagaatctg gagcctccac gatgcccgcc tactgagaa cataccctcc
720
ccgtaccctg cctccaaggc cgacattccc agtgtggcct tctcgtcgcg gctggggggc
780
tcccggggcg cgccggggct gctcatggct gtcgggcagg acctttactg ttaactctac
840
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1440
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1560

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 1704

<210> 3732
 <211> 281
 <212> PRT
 <213> Homo sapiens

<400> 3732
 Tyr Val Leu Arg Asn Leu Tyr Val Pro Asn Arg Lys Val Lys Ser Leu
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 Cys Trp Ala Ser Leu Asn Gln Leu Asp Ser His Val Leu Leu Cys Phe
 20 25 30
 Glu Gly Ile Thr Asp Ala Ser Ser Cys Ala Val Leu Leu Pro Ala Ser
 35 40 45
 Leu Phe Val Asn Ser His Pro Gly Ile Asp Arg Pro Gly Met Leu Cys
 50 55 60
 Ser Phe Arg Ile Pro Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile
 65 70 75 80
 Gln Ala Asn Asn Cys Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu
 85 90 95
 Thr Asn Val Val Thr Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp
 100 105 110
 Val Leu Ala Gln Gln Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly
 115 120 125
 Cys Arg Ser Gly Glu Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln
 130 135 140
 Gly Lys Gly Trp Lys Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr
 145 150 155 160
 Ser Val Arg Ile Leu Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met
 165 170 175
 Ala Gly Lys Ile Lys Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg
 180 185 190
 Gln Tyr Glu Gly His Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val
 195 200 205
 His Glu Glu Glu Gly Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr
 210 215 220
 Arg Ile Trp Ser Leu His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser
 225 230 235 240
 Pro Tyr Pro Ala Ser Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser
 245 250 255
 Arg Leu Gly Gly Ser Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly
 260 265 270
 Gln Asp Leu Tyr Cys Tyr Ser Tyr Ser
 275 280

<210> 3733
 <211> 515
 <212> DNA
 <213> Homo sapiens

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<400> 3733
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tcctcagtgc gggagaggga gacgcccggg gcangtccat gcctcccgcg gcgtgggttg
180
tgccgtccag gtgacgtcag aagcagcccg cccctgcctg gatgggtgcgc cctgagtgac
240
gtcaggagca gaggccggag ctgtccatca gcaccaagg ccgcgggcgg gctcaggggca
300
tggggcccgcg gttctggggc ggcccagacc cgggtcctg cgccttcccc ttcctcaggc
360
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420
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<210> 3734
<211> 171
<212> PRT
<213> Homo sapiens

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<400> 3734
Xaa Gly Arg Ala Val Arg Arg Val Thr Ala Gly Thr Arg Pro Gly Trp
1 5 10 15
Val Ser Gly Ser Arg Tyr Arg Arg Gly Arg Arg Arg Gly Arg Leu Lys
20 25 30
Gly Lys Asp Pro Gly Ser Ala Pro Ser Ser Val Arg Glu Arg Glu Thr
35 40 45
Pro Gly Ala Xaa Pro Cys Leu Pro Arg Arg Gly Trp Cys Val Pro Gly
50 55 60
Asp Val Arg Ser Ser Pro Pro Leu Pro Gly Trp Cys Ala Leu Ser Asp
65 70 75 80
Val Arg Ser Arg Gly Arg Ser Cys Pro Ser Ala Pro Lys Ala Ala Gly
85 90 95
Gly Leu Arg Ala Trp Gly Arg Gly Ser Gly Ala Ala Arg Ala Pro Ala
100 105 110
Pro Ala Pro Ser Pro Ser Ser Gly Xaa Ser Pro Ser Ser Arg Thr Pro
115 120 125
Arg Asp Trp Ser Ala Ser Arg Cys Trp Thr Trp Ser Gly Ala Ala Thr
130 135 140
Ala Pro Thr Pro Phe Ser Pro Ala Gln Gln Pro Pro Ser Ser His Asp
145 150 155 160
Gly Leu Ser Leu Asp Pro Ser Gln Leu Glu Pro
165 170

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<210> 3735
<211> 2512
<212> DNA
<213> Homo sapiens

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<400> 3735
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120
tgactactga acccatccct gacatccgaa accagtatcc agagcacata agcaacatca
180
tctccctect ccaggacctt gtaagtgtct tccctgccag ctctgtgcag gaaacttcca
240
tgctgggttc cctcctgccca acctctctta atgctctgag agcctctggt gttgacatag
300
aagaggaaac ggagaagaac ctggaaaagg tacagactat cattgaacat ctgcaggaaa
360
agaggcgaga gggcactttg agagtggata cctacactct agtgcagcct gaggcagaag
420
accatgttga gagctaccga accatgccca tttaacctac ctacaatgaa gtgcacttgg
480
atgagaggcc ctctcttcgc cccaatatca tttctgaaa atacgacagc actgctatct
540
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600
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660
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720
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840
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960
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1020
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1140
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1200
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1260
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1320
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1380
agaagtctcc catcttggtt gtgtgttata ctaatcatgc tttggaccag tttctggaag
1440
gcactacaa ttgtcagaag accagcattg tgcgggtggg tggaaggagc aacagtga
1500
tcctgaagca gttcacccca agggagctga ggaacaagcg ggaattccgc cgcaacctcc
1560

ccatgcacct ccgaagggcc tacatgagta tcatgacaca gatgaaggag tcagagcaag
 1620
 agcttcatga aggagccaag accctggagt gcaccatgcg tgggtgtcta cgggaacagt
 1680
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 1740
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 1800
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 1860
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 1920
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 1980
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 2040
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 2100
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 2160
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 2280
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 2340
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 2400
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<210> 3736

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3736

Thr Ile Val Ala Leu Gly Gln Gln Leu Asp Arg Ser Lys Pro Gln Glu
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 Ser Gly Arg Pro Ser Ala Thr Gln Lys Lys Lys Met Lys Lys Arg Val
 20 25 30
 Lys Asp Glu Leu Arg Lys Leu Asn Thr Met Pro Ala Ala Glu Ala Asn
 35 40 45
 Glu Ile Glu Asp Val Trp His Leu Asp Leu Ser Ser Arg Trp Gln Leu
 50 55 60
 Tyr Arg Leu Trp Leu Gln Leu Tyr Gln Ala Asp Thr Pro Pro Gly Lys
 65 70 75 80
 Ile Leu Ser Tyr Glu Arg Gln Tyr Arg Thr Ser Ala Glu Arg Met Ala
 85 90 95
 Glu Leu Arg Leu Gln Glu Asp Leu His Ile Leu Lys Asp Ala Gln Val
 100 105 110
 Val Gly Met Thr Thr Thr Gly Ala Ala Lys Tyr Arg Gln Ile Leu Gln

	115		120		125
Lys	Val	Glu	Pro	Arg	Ile
			Val	Ile	Val
			Glu	Glu	Ala
			Ala	Ala	Glu
			Val	Leu	
	130		135		140
Glu	Ala	His	Thr	Ile	Ala
			Thr	Leu	Ser
			Lys	Ala	
	145		150		155

<210> 3737
 <211> 1046
 <212> DNA
 <213> Homo sapiens

<400> 3737
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 120
 atccctgtctg ccagccagcg catcttcctg caggcaacc gcatctcgca tgtgccagct
 180
 gccagcttcc gtgcctgccc caacctcacc atcctgtggc tgcactcgaa tgtgctggcc
 240
 cgaattgatg cggtgcctt cactggcctg gccctcctgg gagcactgga cctcagcgat
 300
 aatgcacagc tccggtctgt ggacctgcc acattccacg gcctgggccc cctacacacg
 360
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 420
 gccctgcagt acctctacct gcaggacaac gcgctgcagg cactgcctga tgacaccttc
 480
 cgcgacctgg gcaacctcac acacctcttc ctgcacggca accgcatctc cagcgtgccc
 540
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 600
 gcccatgtgc acccgcatgc ctctcctgac cttggcggcc tcatgacact ctatctgttt
 660
 gccacaatc tatcagcgct gccactgag gccctggccc cctgcgtgc cctgcagtac
 720
 ctgagggtca acgacaacc ctgggtgtgt gactgccggg cagcccccact ctgggctcgg
 780
 ctgcagaagt tccgcggtc ctctccgag gtgcctcgca gcctccgca acgcctggct
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 900
 ccttaccatc ccatctggac cggcagggcc accgatgagg agccgctggg gcttcccaag
 960
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 1046

<210> 3738
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 3738

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Xaa Ala Val Ala Ala Gly Trp Gln Val Ala Ala Pro Cys Pro Gly Ala
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Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln
 20           25           30
Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile
 35           40           45
Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
 50           55           60
Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
 65           70           75           80
Arg Ile Asp Ala Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
 85           90           95
Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
100           105           110
His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
115           120           125
Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
130           135           140
Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
145           150           155           160
Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
165           170           175
Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
180           185           190
Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
195           200           205
Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
210           215           220
Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
225           230           235           240
Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
245           250           255
Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
260           265           270
Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
275           280           285
Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
290           295           300
Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
305           310           315           320
Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
325           330           335
Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg
340           345

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<210> 3739

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 3739

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tcaccccttat cttcgtcatt ttctgggctg agcttttttgg acaaggtgct gtgccagtct
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 120
 agtgaggagg gcctggagat gctcattcaa tgagcgggag gcacctctcc cttcccgtaa
 180
 cttctccctt aactgggtca gctctcgttc ctgagagtga accaggactt tatattgtcg
 240
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 300
 aggtttctga actgctgttt gttctctgcc aactgggggc gcaatttctc gttgatttct
 360
 agaattgtta tctctgcctt ctgcctggac aaagggcccg ctgataccac catgtgcagc
 420
 tttgtggcag aagaggtgga gtcagggact tactgttttg aaaaatgtga tcaatcccca
 480
 cagcacttta ggatccttca ccacaaaaac aaggttcgag gtgcctcaac tcagagctga
 540
 aagcaactgc agtagctcag actctgataa gagtgagga gattgtggcc agcgtgccag
 600
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 660
 aactttggat tcccaaccag taaatcttag caagatctga gtttctccag gtatgatatt
 720
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 780
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 900
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 960
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 1080
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 1252

<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

Met Gly Lys Phe Leu His Gln Gly Leu Gly Glu Ser Thr Gly Ser Pro
 1 5 10 15
 Gly Gln Trp Glu Ser Ala Ala Pro Pro Val Trp Arg Pro Arg Ala His
 20 25 30
 Ser Thr Glu Ala Pro Gly His Pro Gln Glu Asp Gly Lys Gly Gln Leu
 35 40 45
 Ala Gly Glu Ser Pro Gly His Arg Glu Pro Ser Pro Gly Ser Lys Gln

```

      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
100              105              110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
115              120              125
Ile Ser Pro Leu Ser Gln Pro Pro Ser Pro
130              135

```

<210> 3741

<211> 562

<212> DNA

<213> Homo sapiens

<400> 3741

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cagacagcaa gcgacggccc agctcctcaa ggccacctcc gacctcggcg ggggtggggca
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gtcgtgtcac ctgtggggat ccacgtcctg actaaccttg tgttctaga aatccctcac
120
cggcagatcg gtgcctcctg aatccccacc aaaatcccca ctgggaatgt gttcctgaaa
180
gagctgccca ggcttgagaa agcctctttt cagaccaaac ttogtattca aaagctcaaaa
240
agaactgcac acaattagga cagtcataca agatgctgcc cctaactctg ccacaatctg
300
cgagaaggga ggcggggcct ccgagggcaa agtgcccctg ggaagggatc cgcagggaac
360
agctttgaaa ggaccacagc ccccgagccac gaggggagca agcacyagcc ggggagagag
420
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480
ccaggcggaa acagtttctc cagcccatte gcctcccaga ctcttctct caccggcacgg
540
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562

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<210> 3742

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3742

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Met Gly Trp Arg Asn Cys Phe Arg Leu Ala Pro Cys Cys Trp Lys Arg
1              5              10              15
Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
20              25              30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
35              40              45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
50              55              60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

```

```

65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
85
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
100              105              110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
115              120              125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
130              135

```

<210> 3743

<211> 468

<212> DNA

<213> Homo sapiens

<400> 3743

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ggcaatgcaa gctgcacagt cagcttaggg ggtgccaata tggcagagac ccacaagcc
120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaac
180
aaaagcatca gaattatctt ttcttatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagtctttga cggaacctcc agcaatgggc ctctgctagg gcaagtctgc
300
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360
gttactgact cagcaagaat tcaagaact gtctttgtgt tctagtagtt cttatttcct
420
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468

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<210> 3744

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3744

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Xaa His Glu Pro Ser Tyr Lys Leu His Phe Gly Lys Ala Leu Thr Met
1              5              10              15
Ala Glu Ala Glu Gly Asn Ala Ser Cys Thr Val Ser Leu Gly Gly Ala
20              25              30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
35              40              45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
50              55              60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
85              90              95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
100              105              110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

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115
Arg Thr Val Phe Val Phe
130

120

125

<210> 3745
<211> 345
<212> DNA
<213> Homo sapiens

<400> 3745
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60
gacgctgtgg gagaggaaaa cagccacatg tgggctggct gcttgaggga gacacatgag
120
ccgtgaacac gtctcccccgc gccgctccct gggtccatgc gtgctcgtct tgggcaccac
180
gagaacacag ccatgcagcc cccgatcctg cagccacagc cagggcatcg cctgggtcgga
240
tgcagcatct gctccggacg cctctcgtcg tcgggtgccag gcctgccagg ccaagccccg
300
attctcaggg gcggcaggag gtgggaggca cgtttgggag gatcc
345

<210> 3746
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3746
Met Ala Gly Trp Cys Val Tyr Gly Thr Leu Trp Glu Arg Lys Thr Ala
1 5 10 15
Thr Cys Gly Leu Ala Ala Trp Arg Arg His Met Ser Arg Glu His Val
20 25 30
Ser Pro Gly Arg Ser Leu Val Pro Cys Val Leu Val Leu Gly Thr Thr
35 40 45
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile
50 55 60
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys
65 70 75 80
Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly
85 90 95
Arg His Val Trp Ala Asp
100

<210> 3747
<211> 800
<212> DNA
<213> Homo sapiens

<400> 3747
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60
cgcgccggac cctgggatgc tcttcggcgc catcccgctg cgctacgccca tactggtgag
120


```

aagggggcgc gcccgccac ttctgectg agcccccgc cctctctggt ggtctctct
180
ggggcgcccc tgccaatccc cgcttcccc tcccgagat gcagatgcgc ttcgatggac
240
gcctgggctt ccccgggga ttctgtggaca cgcaggacag aagcctagag gacgggctga
300
accgcgagct gcgcgaggag ctgggcgaag cggctgcgc ttccgcgtg gagcgactg
360
actaccgcag ctcccacgtc ggggtcaggg ccacgcgttg tggccactt ctatgccaa
420
cgtctgacgc tcgaggagct gttggctgtg gagggccgcy caacacgcy caaggaccac
480
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540
gctttctctc ccccaagaaa gcattccctg agaaaagtct ttgcccctct gacctggcc
600
tctcccagc ttcttgggtg gagtgggat cgtgatcctc tatactctga attagtact
660
ccaacctggg ctttctgtaa aggtctttcc cacccttac caggagagat cctttctaga
720
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780
tctaggtgtg gcaacctagg
800

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<210> 3748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3748

```

Met Gln Met Arg Phe Asp Gly Arg Leu Gly Phe Pro Gly Gly Phe Val
1      5      10      15
Asp Thr Gln Asp Arg Ser Leu Glu Asp Gly Leu Asn Arg Glu Leu Arg
20      25      30
Glu Glu Leu Gly Glu Ala Ala Ala Phe Arg Val Glu Arg Thr Asp
35      40      45
Tyr Arg Ser Ser His Val Gly Val Arg Ala Thr Arg Cys Gly Pro Leu
50      55      60
Leu Cys Gln Ala Ser Asp Ala Arg Gly Ala Val Gly Cys Gly Gly Arg
65      70      75      80
Arg Asn Thr Arg Gln Gly Pro Arg Ala Gly Gly Gly Thr Ser Leu Gly
85      90      95
Leu Cys Pro Phe Pro Asn Phe Leu Phe Ser Gln Ser Phe Leu Ser Pro
100     105     110
Lys Lys Ala Ser Leu Glu Lys Ser Leu Cys Pro Ser Asp Leu Ala Leu
115     120     125
Ser Pro Ala Phe Leu Val Glu Leu Gly Ser
130     135

```

<210> 3749

<211> 648

<212> DNA

<213> Homo sapiens

```

<400> 3749
cgcgccccc gggaggatcc tgccaagtgg gtgatggaca catatccatg ggcagccagc
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120
ggctactcca tgctcgggga gggatcgaca agcaagcaga tgcctccagc tgatgctgaa
180
ggtgaccgcg tgatgaacat gctgatgagg ctgcaggagg cagccaacta ctccagcccc
240
cagagctatg acagcgactc caacagcaac agccatcacg atgacatctt ggaactctct
300
ttggagtcca ctctgtgaca ggggcccgsa gccagcgccc ctctctctct cctcaccgca
360
ttccacctgc atccccaca tcacctgaa gatgacttcc tgagccagcc cccagccaca
420
gccttagagc tgcgggaaca ccgagacccc ccgtccttca gcctcgacct gsgtgaggc
480
atccggggcc agctgcctgc ggaccgcttc cttccacagc gagaactgca ctactctctg
540
ttgtacttta attattgttt tgcttgtgtg ctgtgacctc cctaagacac tgaagatact
600
tctcgggaaa ggcacatcgc cgttgaaatg aaaaaaaaa aaaaaaaaa
648

```

```

<210> 3750
<211> 105
<212> PRT
<213> Homo sapiens

```

```

<400> 3750
Arg Ala Pro Trp Glu Asp Pro Ala Lys Trp Val Met Asp Thr Tyr Pro
1          5          10          15
Trp Ala Ala Ser Pro Gln Gln His Glu Trp Pro Pro Leu Leu Gln Leu
20          25          30
Arg Pro Glu Asp Val Gly Phe Asp Gly Tyr Ser Met Pro Arg Glu Gly
35          40          45
Ser Thr Ser Lys Gln Met Pro Pro Ser Asp Ala Glu Gly Asp Pro Leu
50          55          60
Met Asn Met Leu Met Arg Leu Gln Glu Ala Ala Asn Tyr Ser Ser Pro
65          70          75          80
Gln Ser Tyr Asp Ser Asp Ser Asn Ser Asn Ser His His Asp Asp Ile
85          90          95
Leu Asp Ser Ser Leu Glu Ser Thr Leu
100          105

```

```

<210> 3751
<211> 554
<212> DNA
<213> Homo sapiens

```

```

<400> 3751
gcgcgcctgt ctgccctcgc acgtgcgctg gcaggggcgc cgctcgcgcc tcaccatgga
60

```

```

cctggccccg ctgctgctcg cggtcgggtc gccccgagcg gggccaaggg cgtttcctac
120
acgcagggcc agagtccgga gccgcggacc cgcgaggtat ttctactacg tggaccacca
180
gggcagcgtt ttcttgatg attccaaat gaagaatttc atcacctgct tcaagacc
240
gcagttctcg gtcaccttct tctccgcct gagaccacac cgcagcgggc gctacgaggc
300
cgctttcccc ttctctctcg cctgcggcag agagcgcaac ttctgctgct gcgaggacgc
360
gccggtggtc ttcacgcacc tgctgaccgc ggaccacggg cctccgcgcc tctctactg
420
cggcgggtggc gaggccctgg ccgtgccctt cgagccggcg cgctgctgc cctggccgc
480
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540
ttcggccctg gcc
554

```

<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

```

Ala Arg Leu Ser Ala Leu Ala Arg Ala Leu Ala Gly Pro Pro Pro Arg
1           5           10           15
Pro His His Gly Pro Gly Pro Ala Ala Arg Gly Ser Val Ala Pro
20           25           30
Ser Gly Ala Lys Gly Val Ser Tyr Thr Gln Gly Gln Ser Pro Glu Pro
35           40           45
Arg Thr Arg Glu Val Phe Leu Leu Arg Gly Pro Pro Gly Pro Ala Phe
50           55           60
Pro Gly
65

```

<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

```

nnaattcggga acaggtgcag tacttgctct aactttgccg cagctgcctc ccttctctcg
60
gaacccactc tctaaccaca cccccgagag gcggagagaa tgtgggagca cttcagagag
120
gcctaggctc cggagatcgg gccatctggg ctctgaaagc aaattagttt tccaactcat
180
gtctggctcc ggcgttaccc agacgcctgg aaggtccttc ctgcagtctg atcaccattt
240
ttctgctgc actgaccaat cagctccctt tggcctcaa cctcggaat gatggattag
300
gggagctctag aaatggacga agccctagaa acgcagctga agacgagcag aggacgcttc
360

```

tcggtctacag aatccctccc caccttggag ctcttatctc aggtggacat ggactgcagg
 420
 gtccacatgc gacccatcgg cctgacgtgg gtgctgcaac tgaccttggc atggatcctg
 480
 ctagaagcct gtggagggag cgcgccactc caagccaggt cccagcaaca ccatgggctg
 540
 gcagctgatac tgggcaaagg caagctgcac ctggcaggac cttgttgtcc ctcatagatg
 600
 gacacaacag agacatcggg ccttggaac catccagaac gctgtggagt gccgagccct
 660
 gaatgcgaat ccttctctga acactccaa cgtgcccttc gcagtcgctt ccgctcgagg
 720
 ctattggggg tacgccaggc acagccgctc tgcgaggagc tctgccaggc ctggttcgcc
 780
 aactgcgaag atgatatcac ctgcggcccg acttggtctc cactctcaga aaaaaggggc
 840
 tgtgagccca gctgccttac ctatggacag accttcgcag acgggacgga cctttgtcgc
 900
 tcggtctctgg gccacgcct accggtgggt gctcctggag ccggtcactg cttcaacatc
 960
 tccatctccg cggtacctcg tcccagacca ggacgacggg gccgggaagc tccctcccg
 1020
 cgttcccgca gccctgcac ctccatcctg gacgctgcgg gcagcgggag tggcagtgga
 1080
 agcgcgacgc gccctagcg gacgcgtggc cctgagttgg gggagcgacc cttcccccag
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 1200
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 1260
 agaaatgacc caactctctc acttttccct ctcccctttg aataaagtcg ccagctaaaa
 1320
 aaaaagtcca tgtccacctg agataagagc tgttggtcgg attggggggg ccacatgcga
 1380
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 1426

<210> 3754

<211> 261

<212> PRT

<213> Homo sapiens

<400> 3754

Met Asp Glu Ala Leu Glu Thr Gln Leu Lys Thr Ser Arg Gly Arg Phe
 1 5 10 15
 Ser Ala Thr Glu Ser Leu Pro Thr Leu Glu Leu Ser Gln Val Asp
 20 25 30
 Met Asp Cys Arg Val His Met Arg Pro Ile Gly Leu Thr Trp Val Leu
 35 40 45
 Gln Leu Thr Leu Ala Trp Ile Leu Leu Glu Ala Cys Gly Gly Ser Arg
 50 55 60
 Pro Leu Gln Ala Arg Ser Gln Gln His His Gly Leu Ala Ala Asp Leu
 65 70 75 80
 Gly Lys Gly Lys Leu His Leu Ala Gly Pro Cys Cys Pro Ser Glu Met

tttcttttagc cagccatcct ggtactgtag tttaggggtt gatggtggtt gaaattgatt
780
tctggctggt tactaagggtg cctgctagcc attgtataaa attaaaaacat gaagaatatt
840
ttttttttga gcattggctag tggattttaa acaacacata cctgtcactg ctggagtcac
900
acttataaaa agccttaagt ggaagtggt ccagacggag actctgagtt aatagaggag
960
tagaagctgg tggttaaagt cccacgacgc acatggcctt gccagaaact ctgtttaatg
1020
atcggccttt cactctttca cttatcctta gtcccagtag ccaggatacc tgatggccac
1080
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1140
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1200
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1260
aattagctcc actcaagact agtccacgaa cgagaccgcg cttttctaca caggatccaa
1320
ggtcacgaga agcagccaga gtgcccgcgc tccgccggtc ctggtctgcc attgccagt
1380
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1440
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1500
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1560
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1620
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1680
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1740
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1800
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1860
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1920
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2100
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2160
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2220
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2280
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2340

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cccagcggtt accactgctg tcaagccaca gcccttggcc accatacggg ccatcctcag
2400
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2520
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2580
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2640
taaatgttaag gaaagcttaa attcttgtat ctttaaaaga gaaaatctta ttaaccctt
2700
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2760
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2820
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2880
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3060
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3120
cagaaaaacga gccccagccc tgagggccc
3149

```

<210> 3756

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3756

```

Met Asn Leu Cys Ser Lys Cys Phe Ala Asp Phe Gln Lys Lys Gln Pro
  1          5          10          15
Asp Asp Asp Ser Ala Pro Ser Thr Ser Asn Ser Gln Ser Asp Leu Phe
          20          25          30
Ser Glu Glu Thr Thr Ser Asp Asn Asn Thr Ser Ile Thr Thr Pro
  35          40          45
Thr Leu Ser Pro Ser Gln Gln Pro Leu Pro Thr Glu Leu Asn Val Thr
  50          55          60
Ser Pro Ser Lys Glu Glu Cys Gly Pro Cys Thr Asp Thr Ala His Val
  65          70          75          80
Ser Leu Ile Thr Pro Thr Lys Arg Ser Cys Gly Thr Asp Ser Gln Ser
          85          90          95
Glu Asn Glu Ala Ser Pro Val Lys Arg Pro Arg Leu Leu Glu Asn Thr
          100          105          110
Glu Arg Ser Glu Glu Thr Ser Arg Ser Lys Gln Lys Ser Arg Arg Arg
          115          120          125
Cys Phe Gln Cys Gln Thr Lys Leu Glu Leu Val Gln Gln Glu Leu Gly
          130          135          140
Ser Cys Arg Cys Gly Tyr Val Phe Cys Met Leu His Arg Leu Pro Glu

```

145		150		155		160
Gln	His	Asp	Cys	Thr	Phe	Asp
				His	Met	Gly
				Arg	Gly	Arg
				Glu	Glu	Ala
		165		170		175
Ile	Met	Lys	Met	Val	Lys	Leu
			Asp	Arg	Arg	Lys
				Val	Gly	Arg
				Ser	Cys	Gln
		180		185		190
Arg	Ile	Gly	Glu	Gly	Cys	Ser
		195				

<210> 3757

<211> 1046

<212> DNA

<213> Homo sapiens

<400> 3757

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nnacgcgtag cctcgccggg aagccaggcg tcgttctctc ggccatctc gctcatgctc
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aggggcggtg ccccccagca gcgcggcgcc gtgttcgttg acaaggagaa cctcaccatg
120
ccgggacctca ggttcgacaa catccaggga gatgcagtta aagacttgat gcttcgcttt
180
ctgggtgaaa aagctgcagc aaagagacaa gtctctaatg ccgactcagt ggaacaatct
240
tttgttggat tgaacacagct aatccgttga caaatggcat gccctccgtt gcgctcagca
300
cactgacctt gtcaccatta ctaacggctg gctggcgctg cttccagcaa gagctgcaga
360
aactggaggg cagcagtgga cctgtgcgga cgtctctctc cagccacagg ccaggggctac
420
ggcaagagcg ggctgctcac cagccacagc acagattcac tgcagctctg gtttgtcagg
480
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540
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960
tatggggaagc tgaaggagag agacatcttt cttgccaagg ctgccagctg aagcttcaag
1020
gtcagtgctg cagccccccc tgggtgt
1046

```

<210> 3758

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3758

```

Arg Leu Ala Gly Ala Ala Ser Ser Lys Ser Cys Arg Asn Trp Arg Ala
 1              5              10              15
Ala Val Asp Leu Cys Gly Arg Leu Leu Thr Ala His Gly Gln Gly Tyr
      20              25              30
Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
 35              40              45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
 50              55              60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
 65              70              75              80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85              90              95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100              105              110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115              120              125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130              135              140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
      145              150              155              160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165              170              175
Asp Pro Gly Leu Cys Gly Leu Val Val Ala Leu Ala Glu Ile Phe
      180              185              190
Phe Arg Asp Gly Lys Ser Phe
      195

```

<210> 3759

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3759

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ngtcgaatat ccatgcagac tagatacgtt cttaaagaaac agcaataaag ctctctatgg
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tctcatccag aagtgtaaaa acagatatag tgccttcaac taccgggcaa caggagaaga
 120
agagcaaagg caggcggacg agctcctgga aaaaattgag agcatgggtgc atcagaatgg
 180
gaacaagcat tgtgttttca gagaaaaaga aacctgaac attgtccttg tggggagaag
 240
cgggactggg aagagtgcga cggggaactc tatectgggg agcctcgtct tcacctctcg
 300
gtccggggcc cagccagtca ccaagaccag coagagtggc aggaggacat gggacggaca
 360
ggaggtgggtg gttgtggaca ccttctcttc aaccagatgc tggatgtcaa aggaccatc
 420
ccggttaaaa gaggagggtca agcgtgtgtt gtcctgctgt gaaaaagggg acacattttt
 480
gtcctggtgt tcacgtggg acgattcact gaagaggaca aaacagctgt ggcgaaactg
 540

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gaggccatct ttggagcaga ctttacgaaa tacgcgatta tgctgttcac ccggaaggaa
 600
 gacctagggg cggggaattt ggaagacttc atgaagaact cagataacaa agcccttcgg
 660
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 720
 gccccagaaa cccagggtgaa agctctttta acaaaggta atgatctgag aaaagaaagt
 780
 gggtggtccg ggtatcccca tacacaggag aacgtcagcc cttcacgcgt
 830

<210> 3760

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3760

Glu	His	Gly	Ala	Ser	Glu	Trp	Glu	Gln	Ala	Leu	Cys	Phe	Gln	Arg	Lys
1				5				10					15		
Arg	Asn	Pro	Glu	His	Cys	Pro	Cys	Gly	Glu	Lys	Arg	Asp	Trp	Glu	Glu
			20				25					30			
Cys	Asp	Arg	Glu	Leu	Tyr	Pro	Gly	Glu	Pro	Arg	Leu	His	Leu	Ser	Ala
			35				40					45			
Pro	Gly	Pro	Ala	Ser	His	Gln	Asp	Gln	Pro	Glu	Trp	Gln	Glu	Asp	Met
			50			55				60					
Gly	Arg	Thr	Gly	Gly	Gly	Gly	Cys	Gly	His	Pro	Ser	Phe	Asn	Gln	Met
						70			75					80	
Leu	Asp	Val	Lys	Gly	Pro	Ile	Pro	Val	Lys	Arg	Gly	Gly	Gln	Ala	Leu
				85				90					95		
Phe	Val	Leu	Leu												
															100

<210> 3761

<211> 458

<212> DNA

<213> Homo sapiens

<400> 3761

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 120
 aaggaggagg gcccgccgcg agcgggaggt ggccccccgg gacaccccg cgccccgagg
 180
 cgaggcaccc ccgaaccccg atccctgctg gcaggaccag aggtgtgagg gtggggggcg
 240
 ggaagccttg ccgcggggcg aatggtcgta cgcacggagc gcacatccct ctccttcctg
 300
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 360
 gctgcgtgca gacgcgcttg attggttaga taaggggggc ggggcgcgcg ctgttaccag
 420
 gcaactgcgc cccggatccg cccctgagc tcacgcgt
 458

<210> 3762
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 3762
 Thr Arg Ala Gly Gly Thr Gln Arg Pro Gln Val Arg Thr Pro Pro Pro
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 20 25 30
 Arg Pro Pro Pro Glu Gly Leu Gly Lys Gly Gly Arg Pro Ala Ala Ala
 35 40 45
 Gly Gly Gly Pro Pro Gly His Pro Gly Ala Pro Arg Arg Gly Thr Pro
 50 55 60
 Glu Pro Arg Ser Leu Leu Ala Gly Pro Glu Val
 65 70 75

<210> 3763
 <211> 1340
 <212> DNA
 <213> Homo sapiens

<400> 3763
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 ctgcacatgg ggcgcctgac ggaagcggcg gcagcgggca gcggtctctcg ggctgcaggc
 120
 tgggcagggt cccctccccc gctcctgcgc ctgtctccca cgtccccag gtgcgcggcc
 180
 accatggcgt ccagcgacga ggacggcacc aacggcggcg cctcggaggc cggcgaggac
 240
 cgggaggctc ccggcaagcg gaggcgcctg gggttcttgg ccaccgcctg gctcaccttc
 300
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 360
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 420
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 480
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<211> 288

<212> PRT

<213> Homo sapiens

<400> 3764

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<212> DNA

<213> Homo sapiens

<400> 3765

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 65          70          75
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<211> 1931

<212> DNA

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Ser Tyr Pro Arg Gln Lys Thr Pro Gly Thr Pro Lys Arg Asn Cys Pro
      340              345              350
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<210> 3771

<211> 1514

<212> DNA

<213> Homo sapiens

<400> 3771

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 3773

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<212> PRT

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Leu Asp Tyr Ile Met Gly Gly Cys Gln Ile Ser Phe Thr Val Ala Ile
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Lys Cys Val Leu Ala Glu Val Pro Lys Gln Val Val Glu Tyr Tyr Ser
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Glu Gln Leu Tyr Leu Gly Leu Phe Asn Arg Leu Lys Lys Ser Ile Asn		740
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<211> 1853

<212> DNA

<213> Homo sapiens

<400> 3779

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<212> PRT

<213> Homo sapiens

<400> 3780

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<213> Homo sapiens

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Asp	Leu	Gln	Asp	Ser	Ser	Glu	Leu	His	Pro	Glu	Phe	Ala	Lys	Cys	His
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Val	Pro	Trp	Thr	Pro	Arg	Phe	Ala	Tyr	Gly	Val	Phe	Tyr	Ala	Asp	Pro
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Cys	Thr	Gly	Gly	Asp	Ser	Tyr	His	Pro	His	Glu	Gln	Ser	Ser	Pro	Pro
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<210> 3784

<211> 804

<212> FRT

<213> Homo sapiens

<400> 3784

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His	Val	Ile	Ala	Ile	Glu	Asp	Ala	Phe	Val	Asn	Ser	Gln	Glu	Trp	Thr
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Leu	Ser	Arg	Ser	Val	Pro	Glu	Leu	Lys	Val	Gly	Ile	Val	Gly	Asn	Leu
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 Ser Thr Ser Asn Phe Lys Ala Asp Gly Leu Ser Gly Thr Ala Glu Glu
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 Trp His Phe Glu Ala Thr Thr Tyr Glu Glu Arg Asp Ala Thr Val Gln
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 Glu Cys Ser Gly Ile His Arg Asn Leu Gly Thr His Leu Ser Arg Val
 595 600 605
 Arg Ser Leu Asp Leu Asp Asp Trp Pro Ile Glu Leu Ile Lys Val Met
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 Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser Val Trp Glu Glu Ser Ser
 625 630 635 640
 Gln Gly Arg Thr Lys Pro Ser Val Asp Ser Thr Arg Glu Glu Lys Glu
 645 650 655
 Arg Trp Ile Arg Ala Lys Tyr Glu Gln Lys Leu Phe Leu Ala Pro Leu
 660 665 670
 Pro Cys Thr Glu Leu Ser Leu Gly Gln His Leu Leu Arg Ala Thr Ala

675	680	685
Asp Glu Asp Leu Arg Thr Ala	Ile Leu Leu Leu Ala	His Gly Ser Arg
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705	710	715
His Leu Ala Cys Arg Lys Gly Asn Val Val Leu Ala Gln Leu Leu Ile		
725	730	735
Trp Tyr Gly Val Asp Val Thr Ala Arg Asp Ala His Gly Asn Thr Ala		
740	745	750
Leu Ala Tyr Ala Arg Gln Ala Ser Ser Gln Glu Cys Ile Asp Val Leu		
755	760	765
Leu Gln Tyr Gly Cys Pro Asp Glu Arg Phe Val Leu Met Ala Thr Pro		
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<210> 3785

<211> 1901

<212> DNA

<213> Homo sapiens

<400> 3785

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<210> 3786

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3786

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 35 40 45
 Gln Ala Gln Ala Glu Pro Glu Arg His Val Trp His Arg Arg Glu Ser
 50 55 60
 Asp Glu Ser Gly Glu Ser Ala Pro Asp Glu Gly Gly Glu Gly Ala Arg
 65 70 75 80
 Ala Pro Gln Ser Ile Pro Arg Ser Ala Ser Tyr Pro Cys Ala Ala Pro
 85 90 95
 Arg Pro Gly Ala Pro Glu Thr Thr Ala Leu His Gly Gly Phe Gln Arg

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          100          105          110
Arg Tyr Gly Gly Ile Thr Asp Pro Gly Thr Val Pro Arg Val Pro Ser
          115          120          125
His Phe Ser Arg Leu Pro Leu Gly Gly Trp Ala Glu Asp Gly Gln Ser
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Ala Ser Arg His Pro Glu Pro Val Pro Glu Glu Gly Ser Glu Asp Glu
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Leu Pro Pro Gln Val His Lys Val
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<210> 3787

<211> 717

<212> DNA

<213> Homo sapiens

<400> 3787

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<210> 3788

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3788

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          20          25          30
Pro Trp Gly Ala Lys Cys Ser Trp Arg Gln Val Ala Lys Gly Glu His
          35          40          45
Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

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Ser Leu Leu Ser Trp Leu Ser Pro Ser Leu Leu Val Cys Asn Lys Gly				
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Ala Ala Val Ile Thr His Glu Gln Cys Leu Ala Gln Ser Gly Arg Ser				80
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Ala Val Leu Val His Met Glu Glu Pro Lys Gln Ala Pro Cys Thr Val				
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Leu				

<210> 3789

<211> 4341

<212> DNA

<213> Homo sapiens

<400> 3789

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<211> 1092

<212> PRT

<213> Homo sapiens

<400> 3790

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Glu Thr Trp Asp Gln Cys Glu Lys Lys Ile Lys Glu Leu Lys Ser Arg
 20      25      30
Leu Gln Val Leu Lys Ala Gln Ser Glu Asp Pro Leu Pro Glu Leu His
 35      40      45
Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser
 50      55      60
Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala
 65      70      75
Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu
 85      90      95
Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val
100     105     110
Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val
115     120     125
Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu
130     135     140
Asn Lys Val Leu Gln Thr Val Asp Ile Ser Ile Glu Glu Met Ile Glu
145     150     155
Lys Leu Gln Lys Asp Cys Met Glu Glu Ile Asn Leu Phe Ser Glu Asn
165     170     175
Lys Leu Gln Leu Lys Gln Met Gly Asp Gln Leu Ile Lys Ala Ser Asn
180     185     190
Lys Ser Arg Ala Ala Glu Ile Asp Asp Lys Leu Asn Lys Ile Asn Asp
195     200     205
Arg Trp Gln His Leu Phe Asp Val Ile Gly Ser Arg Val Lys Lys Leu
210     215     220
Lys Glu Thr Phe Ala Phe Ile Gln Gln Leu Asp Lys Asn Met Ser Asn
225     230     235
Leu Arg Thr Trp Leu Ala Arg Ile Glu Ser Glu Leu Ser Lys Pro Val
245     250     255
Val Tyr Asp Val Cys Asp Asp Gln Glu Ile Gln Lys Arg Leu Ala Glu
260     265     270
Gln Gln Asp Leu Gln Arg Asp Ile Glu Gln His Ser Ala Gly Val Glu
275     280     285
Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys
290     295     300
Ala Asn Glu Thr Glu Cys Asp Ser Ile Gln Gln Thr Thr Arg Ser Leu
305     310     315
Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met
325     330     335
Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr
340     345     350
Ser Arg Phe Glu Asp Trp Leu Lys Ser Ala Glu Arg Thr Ala Ala Cys
355     360     365
Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

```


370		375		380
Arg Phe Glu Ala Phe	Gln Arg Gln Ile His	Glu Arg Leu Thr Gln	Leu	
385	390	395	400	
Glu Leu Ile Asn Lys	Gln Tyr Arg Arg Leu Ala	Arg Glu Asn Arg Thr		
	405	410	415	
Asp Thr Ala Ser Arg	Leu Lys Gln Met Val His	Glu Gly Asn Gln Arg		
	420	425	430	
Trp Asp Asn Leu Gln	Arg Arg Val Thr Ala Val Leu	Arg Arg Leu Arg		
	435	440	445	
His Phe Thr Asn Gln	Arg Glu Glu Phe Glu Gly Thr	Arg Glu Ser Ile		
	450	455	460	
Leu Val Trp Leu Thr	Glu Met Asp Leu Gln Leu Thr	Asn Val Glu His		
	465	470	475	
Phe Ser Glu Ser Asp	Ala Asp Asp Lys Met Arg	Gln Leu Asn Gly Phe		
	485	490	495	
Gln Gln Glu Ile Thr	Leu Asn Thr Asn Lys Ile Asp	Gln Leu Ile Val		
	500	505	510	
Phe Gly Glu Gln Leu	Ile Gln Lys Ser Glu Pro Leu	Asp Ala Val Leu		
	515	520	525	
Ile Glu Asp Glu Leu	Glu Glu Leu His Arg Tyr Cys	Gln Glu Val Phe		
	530	535	540	
Gly Arg Val Ser Arg	Phe His Arg Arg Leu Thr	Ser Cys Thr Pro Gly		
	545	550	555	
Leu Glu Asp Glu Lys	Glu Ala Ser Glu Asn Glu Thr	Asp Met Glu Asp		
	565	570	575	
Pro Arg Glu Ile Gln	Thr Asp Ser Trp Arg Lys Arg	Gly Glu Ser Glu		
	580	585	590	
Glu Pro Ser Ser Pro	Gln Ser Leu Cys His Leu Val	Ala Pro Gly His		
	595	600	605	
Glu Arg Ser Gly Cys	Glu Thr Pro Val Ser Val Asp	Ser Ile Pro Leu		
	610	615	620	
Glu Trp Asp His Thr	Gly Asp Val Gly Gly Ser Ser	Ser His Glu Glu		
	625	630	635	
Asp Glu Glu Gly Pro	Tyr Tyr Ser Ala Leu Ser	Gly Lys Ser Ile Ser		
	645	650	655	
Asp Gly His Ser Trp	His Val Pro Asp Ser Pro Ser	Cys Pro Glu His		
	660	665	670	
His Tyr Lys Gln Met	Glu Gly Asp Arg Asn Val	Pro Pro Val Pro Pro		
	675	680	685	
Ala Ser Ser Thr Pro	Tyr Lys Pro Pro Tyr Gly	Lys Leu Leu Pro		
	690	695	700	
Pro Gly Thr Asp Gly	Gly Lys Glu Gly Pro Arg	Val Leu Asn Gly Asn		
	705	710	715	
Pro Gln Gln Glu Asp	Gly Gly Leu Ala Gly Ile	Thr Glu Gln Gln Ser		
	725	730	735	
Gly Ala Phe Asp Arg	Trp Glu Met Ile Gln Ala	Gln Glu His Asn		
	740	745	750	
Lys Leu Lys Ile Lys	Gln Asn Leu Gln Gln Leu	Asn Ser Asp Ile Ser		
	755	760	765	
Ala Ile Thr Thr Trp	Leu Lys Lys Thr Glu Ala	Glu Leu Glu Met Leu		
	770	775	780	
Lys Met Ala Lys Pro	Pro Ser Asp Ile Gln Glu	Ile Glu Leu Arg Val		
	785	790	795	
Lys Arg Leu Gln Glu	Ile Leu Lys Ala Phe Asp	Thr Tyr Lys Ala Leu		

805 810 815
 Val Val Ser Val Asn Val Ser Ser Lys Glu Phe Leu Gln Thr Glu Ser
 820 825 830
 Pro Glu Ser Thr Glu Leu Gln Ser Arg Leu Arg Gln Leu Ser Leu Leu
 835 840 845
 Trp Glu Ala Ala Gln Gly Ala Val Asp Ser Trp Arg Gly Gly Leu Arg
 850 855 860
 Gln Ser Leu Met Gln Cys Gln Asp Phe His Gln Leu Ser Gln Asn Leu
 865 870 875 880
 Leu Leu Trp Leu Ala Ser Ala Lys Asn Arg Arg Gln Lys Ala His Val
 885 890 895
 Thr Asp Pro Lys Ala Asp Pro Arg Ala Leu Leu Glu Cys Arg Arg Glu
 900 905 910
 Leu Met Gln Leu Glu Lys Glu Leu Val Glu Arg Gln Pro Gln Val Asp
 915 920 925
 Met Leu Gln Glu Ile Ser Asn Ser Leu Leu Ile Lys Gly His Gly Glu
 930 935 940
 Asp Cys Ile Glu Ala Glu Glu Lys Val His Val Ile Glu Lys Lys Leu
 945 950 955 960
 Lys Gln Leu Arg Glu Gln Val Ser Gln Asp Leu Met Ala Leu Gln Gly
 965 970 975
 Thr Gln Asn Pro Ala Ser Pro Leu Pro Ser Phe Asp Glu Val Asp Ser
 980 985 990
 Gly Asp Gln Pro Pro Ala Thr Ser Val Pro Ala Pro Arg Ala Lys Gln
 995 1000 1005
 Phe Arg Ala Val Arg Thr Thr Glu Gly Glu Glu Glu Thr Glu Ser Arg
 1010 1015 1020
 Val Pro Gly Ser Thr Arg Pro Gln Arg Ser Phe Leu Ser Arg Val Val
 1025 1030 1035 1040
 Arg Ala Ala Leu Pro Leu Gln Leu Leu Leu Leu Leu Leu Leu Leu
 1045 1050 1055
 Ala Cys Leu Leu Pro Ser Ser Glu Glu Asp Tyr Ser Cys Thr Gln Ala
 1060 1065 1070
 Asn Asn Phe Ala Arg Ser Phe Tyr Pro Met Leu Arg Tyr Thr Asn Gly
 1075 1080 1085
 Pro Pro Pro Thr
 1090

<210> 3791

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

tgcacaggtc acacacacgg tatactgtgt ctggcagctc atcaagacgg tggaagcagc
 60
 ctggcaacat agtatctgtg aaagtgtgga gctcatcttg ttccaacggg tcagcatccc
 120
 tgaaccttct ttaaacattt agcctcttcc tctctctgct ttcccagagc tttcggttcc
 180
 tcttctctct tccggcaagc aacttctca ggtgactctg ccttttgatc cattggaata
 240
 tctgttccca gagacatagc aattgtcttc atcatctggt cctcttcaga catgctgaga
 300

tcccgaaacaa ctctctcccat gattggaggga ggggtgggtta aaagggtactc tgtggcctgc
 360
 tccatgggtgc tgggtgttcaa cagtgccctcc attgcatgtt cccttggtgaa gcccattgtcc
 420
 atgagctgtt gcagttgttg ctggttgact tgagggtccc ggcgggagcc accttctctt
 480
 tgccctgtat cctcttctcc tcgagacccc tccttctctt tgcttagtct ctctcgaatc
 540
 acagggtctc ctggagggat gtggcataga atggccacga tcgattcagc cattcgtcca
 600
 ccatatacct tcaggggttt ccggttccat aagtttttga tgcaagtaaa ggctgctttc
 660
 tgagttacca caagggaagcg cagtgcactg aactggggaa agttctggac acctccaggc
 720
 aatttggcag gcagcgaatg tggagattca agcacctggg tgggattcac catcttctcc
 780
 accagcataa gccaggcatc taggaattct cctgtgccat caggcaagtc tgagtgttcc
 840
 aatccctcag aaacaggaac tttacctccc atggacagag cccagttgaa agtttcaaaa
 900
 agagcattgt ggcctccgga gcagagaaat ttttcagca tgagggtgga gggatacttc
 960
 ctctcatcaa acagcattgg ggaatgtgaa ccaactgaac agatgaagaa t
 1011

<210> 3792

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3792

Met Leu Phe Asp Glu Arg Lys Tyr Pro Tyr His Leu Met Leu Gln Lys
 1 5 10 15
 Phe Leu Cys Ser Gly Gly His Asn Ala Leu Phe Glu Thr Phe Asn Trp
 20 25 30
 Ala Leu Ser Met Gly Gly Lys Val Pro Val Ser Glu Gly Leu Glu His
 35 40 45
 Ser Asp Leu Pro Asp Gly Thr Gly Glu Phe Leu Asp Ala Trp Leu Met
 50 55 60
 Leu Val Glu Lys Met Val Asn Pro Thr Thr Val Leu Glu Ser Pro His
 65 70 75 80
 Ser Leu Pro Ala Lys Leu Pro Gly Gly Val Gln Asn Phe Pro Gln Phe
 85 90 95
 Ser Ala Leu Arg Phe Leu Val Val Thr Gln Lys Ala Ala Phe Thr Cys
 100 105 110
 Ile Lys Asn Leu Trp Asn Arg Lys Pro Leu Lys Val Tyr Gly Gly Arg
 115 120 125
 Met Ala Glu Ser Met Leu Ala Ile Leu Cys His Ile Leu Arg Gly Glu
 130 135 140
 Pro Val Ile Arg Glu Arg Leu Ser Lys Glu Lys Glu Gly Ser Arg Gly
 145 150 155 160
 Glu Glu Asp Thr Gly Gln Glu Glu Gly Gly Ser Arg Arg Glu Pro Gln
 165 170 175
 Val Asn Gln Gln Gln Leu Gln Gln Leu Met Asp Met Gly Phe Thr Arg

```

      180              185              190
Glu His Ala Met Glu Ala Leu Leu Asn Thr Ser Thr Met Glu Gln Ala
      195              200              205
Thr Glu Tyr Leu Leu Thr His Pro Pro Pro Ile Met Gly Val Val
      210              215              220
Arg Asp Leu Ser Met Ser Glu Glu Asp Gln Met Met Arg Ala Ile Ala
      225              230              235              240
Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro
      245              250              255
Glu Glu Val Ala Cys Arg Lys Glu Glu Glu Glu Arg Lys Ala Arg Glu
      260              265              270
Lys Gln Glu Glu Glu Glu Ala Lys Cys Leu Lys Lys Val Gln Gly Cys
      275              280              285

```

<210> 3793
 <211> 360
 <212> DNA
 <213> Homo sapiens

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<400> 3793
nnnatctgcc cacacttata tatgtgagtg tacacacaca cagagtgtgt gtgtgtgtgt
60
gtgtgtgtgt gtgtgtgtgt atttatattt cagatcacag gcagatttct gggctctctgt
120
tactttgtgc cgggtaggaa caacagtttc tttttttctt ggagacagtg tttcactctt
180
gttgcccagg ctggagggca atggcgcgat ctcagctcac tgcaacctcc gcctttcggg
240
ctcaagagat tctctgcct cagcctccca agtagctggg attacaggca tgcataacca
300
tgcaccatgc ccgactaatt ttgtattttt agtagagaca gggtttctcc atgttggtca
360

```

<210> 3794
 <211> 96
 <212> PRT
 <213> Homo sapiens

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<400> 3794
Val Tyr Thr His Thr Glu Cys Val Cys Val Cys Val Cys Val Cys Val
1      5      10      15
Cys Val Phe Ile Phe Gln Ile Thr Gly Arg Phe Leu Gly Leu Cys Tyr
20      25      30
Phe Val Pro Gly Arg Asn Asn Ser Phe Phe Phe Ser Trp Arg Gln Cys
35      40      45
Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser
50      55      60      65
Leu Gln Pro Pro Pro Phe Gly Leu Lys Arg Phe Ser Cys Leu Ser Leu
70      75      80
Pro Ser Ser Trp Asp Tyr Arg His Ala Ser Pro Cys Thr Met Pro Asp
85      90      95

```

<210> 3795
 <211> 1341

<212> DNA

<213> Homo sapiens

<400> 3795

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aactgcctgt acaagaaggg cctgatggc tatgacccc agttcataac caagctgctc
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cgcaactaca ggtctcatcc caccatcctg gacattccta accagctcta ttatgaaggg
120
gagctgcagg cctgtgctga tgtcgtggat cgagaacgct tctgcccgct ggcgggccta
180
cctcgacagg gctttcccat catctttcac ggcgtaattg gcaaatgatg gcgtgaaggc
240
aacagcccat ctttcttcaa cctgaagag gctgccacag tgacttecta cctgaagctg
300
ctcctggccc cctctcccaa gaagggcaaa gcccgctga gccctcgaag tgtggcgctc
360
atctccctcg accgaaaca ggtggagaaa atcgttact gcatcaccaa acttgacagg
420
gagcttcgag gactggatga catcaaggac ttgaaggctg gttagtaga agaattccaa
480
ggccaagaag gaagcgtcat cctcatctcc accgtgcgaa gcagccagag ctttgtgcag
540
ctggatctgg actttaatct gggtttctt aagaacccca agaggttcaa tgtatcgtg
600
accgggcca aggccctgct catcatcgtg gggaaacccc ttctcctggg ccatgacct
660
gactggaag tattctctga gttctgtaaa gaaaacggag ggtataccgg gtgtcccttc
720
cctgccaaac tggacctgca acagggacag aattttactg aaggtctgag caagctcagc
780
ccctctacct cagggcccca cagccatgac tacctcccc aggagcggga ggggtgaagg
840
ggcctgtctc tgcaagtggg gccagagtgg aggaatgagc tctgaagaca cagcaccag
900
ccttctcgca ccagccaagc cttaactgcc tgcctgacct tgaaccagaa cccagctgaa
960
ctgccctctc aagggacagg aaggctggg gagggagtgt acaacccaag ccattccacc
1020
cctccctctg ctggggagaa tgacacatca agctgctaac aattggggga aggggaagg
1080
agaaaactct gaaaacaaaa tcttgttcta tgcaaaagcc ttgataatgt ctctctgccc
1140
tgccccccag ttcctgagcc cctaagctga cctgtaggg aaggttgga ctttcagccc
1200
tgctgagggt cccatccct tccagtggga gaggaaccca gcccacac tcggggggag
1260
aaacccagtg gagggtggca ggaagccac ccacaggttt ctaagttag cccctgcta
1320
cagaccactc ccttcacggt t
1341

```

<210> 3796

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3796

```

Asn Cys Leu Tyr Lys Lys Gly Pro Asp Gly Tyr Asp Pro Gln Phe Ile
 1           5           10           15
Thr Lys Leu Leu Arg Asn Tyr Arg Ser His Pro Thr Ile Leu Asp Ile
      20           25           30
Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val
      35           40           45
Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
      50           55           60
Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
65           70           75           80
Asn Ser Pro Ser Phe Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
      85           90           95
Tyr Leu Lys Leu Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
      100          105          110
Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
      115          120          125
Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
      130          135          140
Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
145          150          155          160
Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
      165          170          175
Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
      180          185          190
Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
      195          200          205
Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
      210          215          220
Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
225          230          235          240
Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
      245          250          255
Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
      260          265          270
Pro Gln Glu Arg Glu Gly Glu Gly Glu Ser Leu Gln Val Glu Pro
      275          280          285
Glu Trp Arg Asn Glu Leu
      290

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<210> 3797

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 3797

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nnggaaccgc ccgctgccag ccgctgccag caccctctga gcatggcctg gaacaccaac
60
ctccgtctggc ggctgcgcgt cacctgcctg ctccctcagg tgattatggt gattctcttc
120
gggggtgttcg tgcgctacga cttcgaggcc gacgcccact ggtggtcaga gaggacgcac
180

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aagaacttga ggcacatgga gaacgaattc tactatcgct acccaagctt ccaggacgtg
240
cacgtgatgg tcttcgtggg ctctggcttc ctcatgactt tctgcagcgc ctacggcttc
300
agcgccgtgg gcttcaactt cctgttgcca gccttcggca tccagtgggc gctgctcatg
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caggcgctggt tccactcttt acaagaccgc tacatcgctg tggcggtgga gaaectcatc
420
aacgtgactt tctgcgtggc ctctgtctgc gtggcctttg gggcagttct gggtaaagtc
480
agcccccatt agctgctcat catgacttcc tccaagtga cctctctgcg tgtgaatgag
540
ttcattctcc ttaacctgct aaagggtgaag gatgcaggag gctccatgac catccacaca
600
tttggcgctt actttgggct cacagtgacc cggatcctct accgacgcaa cctagagcag
660
agcaaggaga gacagaattc tgtgtaccag tcggacctct ttgccatgat tggcaccttc
720
ttcctgtgga tgtactggcc cagcttcaac tcagccatat cctaccatgg ggacagccag
780
caccgagcgc ccatcaacac ctactgctcc ttggcagcct gcgtgcttac ctcggtggca
840
atatccagtg ccttgacaaa gaagggtcaag ctggacatgg tgcacatcca gaatgccag
900
ctcgaggag ggggtggcgt ggttaccct gctgagatga tgctcatgcc ttacggtgcc
960
ctcatcatcg gcttcgtctg cggcatcttc tccacctggt gttttgtata cctgacccca
1020
ttcctggagt cccggctgca catccaggac acatgtggca ttaacaatct gcattggcatt
1080
cctggcatca taggcggcat cgtgggtgct gtgacagcgg cctccgccag ccttgaagtc
1140
tttggaagg aagggttgtt ccattccttt gactttcaag gtttcaacgg ggaactggacc
1200
gcaagaacac agggaaagtt ccagatttat ggtctcttgg tgacctgggc catggccctg
1260
atgggtggca tcatgtggg gctcattttg agattaccat tctggggaca accttcagat
1320
gagaactgct ttgaggatgc ggtctactgg gagatgcctg aagggaacag cactgtctac
1380
atccctgagg accccacctt caagccctca ggacctcag taccctcagt acccatggtg
1440
tccccactac ccatggcttc ctcggtaccc ttggtacctt aggcctccag ggcagggtgag
1500
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1560
gcaagagtga gcaagcagca cccccacctg ctggcttggc ctcaagggtg ctccacccct
1620
gccctccctt tcatccaggt ggtctgtcct gagaatggag aaggagaagc tacaagtgg
1680
gcattccaag cgggttcttg ctgcagaagt tctgcctctg cctgggggtct tggccacatt
1740
ggagaaaaac aggtcctaaag tggggctggg acctggtggg tgaacctgag ctctcccagg
1800

agacaactta gctgccagtc accacctatg aggcctctct accccgtgcc tgcacctcgg
 1860
 ccagcatctc ctatgctccc tgggtccccc agacctctct gtgtgtgtgt cgtggcagcc
 1920
 tccaggaata aacattcttg ttgtccttg taataaaaaa aaaaaaaaaa
 1970

<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

Leu Arg Trp Arg Leu Pro Leu Thr Cys Leu Leu Leu Gln Val Ile Met
 1 5 10 15
 Val Ile Leu Phe Gly Val Phe Val Arg Tyr Asp Phe Glu Ala Asp Ala
 20 25 30
 His Trp Trp Ser Glu Arg Thr His Lys Asn Leu Ser Asp Met Glu Asn
 35 40 45
 Glu Phe Tyr Tyr Arg Tyr Pro Ser Phe Gln Asp Val His Val Met Val
 50 55 60
 Phe Val Gly Phe Gly Phe Leu Met Thr Phe Leu Gln Arg Tyr Gly Phe
 65 70 75 80
 Ser Ala Val Gly Phe Asn Phe Leu Leu Ala Ala Phe Gly Ile Gln Trp
 85 90 95
 Ala Leu Leu Met Gln Gly Trp Phe His Phe Leu Gln Asp Arg Tyr Ile
 100 105 110
 Val Val Gly Val Glu Asn Leu Ile Asn Ala Asp Phe Cys Val Ala Ser
 115 120 125
 Val Cys Val Ala Phe Gly Ala Val Leu Gly Lys Val Ser Pro Ile Gln
 130 135 140
 Leu Leu Ile Met Thr Phe Phe Gln Val Thr Leu Phe Ala Val Asn Glu
 145 150 155 160
 Phe Ile Leu Leu Asn Leu Leu Lys Val Lys Asp Ala Gly Gly Ser Met
 165 170 175
 Thr Ile His Thr Phe Gly Ala Tyr Phe Gly Leu Thr Val Thr Arg Ile
 180 185 190
 Leu Tyr Arg Arg Asn Leu Glu Gln Ser Lys Glu Arg Gln Asn Ser Val
 195 200 205
 Tyr Gln Ser Asp Leu Phe Ala Met Ile Gly Thr Leu Phe Leu Trp Met
 210 215 220
 Tyr Trp Pro Ser Phe Asn Ser Ala Ile Ser Tyr His Gly Asp Ser Gln
 225 230 235 240
 His Arg Ala Ala Ile Asn Thr Tyr Cys Ser Leu Ala Ala Cys Val Leu
 245 250 255
 Thr Ser Val Ala Ile Ser Ser Ala Leu His Lys Lys Gly Lys Leu Asp
 260 265 270
 Met Val His Ile Gln Asn Ala Thr Leu Ala Gly Gly Val Ala Val Gly
 275 280 285
 Thr Ala Ala Glu Met Met Leu Met Pro Tyr Gly Ala Leu Ile Ile Gly
 290 295 300
 Phe Val Cys Gly Ile Ile Ser Thr Leu Gly Phe Val Tyr Leu Thr Pro
 305 310 315 320
 Phe Leu Glu Ser Arg Leu His Ile Gln Asp Thr Cys Gly Ile Asn Asn


```

          325          330          335
Leu His Gly Ile Pro Gly Ile Ile Gly Gly Ile Val Gly Ala Val Thr
          340          345          350
Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355          360          365
Ser Phe Asp Phe Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln
          370          375          380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
          385          390          395          400
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405          410          415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420          425          430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
          435          440          445
Pro Ser Gly Pro Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro
          450          455          460
Met Ala Ser Ser Val Pro Leu Val Pro
          465          470

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<210> 3799

<211> 210

<212> DNA

<213> Homo sapiens

<400> 3799

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tcgaggaact gctggcctc cacatcccaa gcctcacctt ctccctgcat cacagagaga
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agcaagcaga aggccoggag gagaacaaga tccagctcct cctcctcttc ttccagttct
120
tctagctcct cttcttcttc ctgcctctcc tcctcttctc ccagtgatgg ccggaagaag
180
cgggggaagt acaaggacaa gaggaggaag
210

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<210> 3800

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3800

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Ser Arg Asn Cys Ser Ala Ser Thr Ser Gln Ala Ser Pro Ser Pro Cys
1          5          10          15
Ile Thr Glu Arg Ser Lys Gln Lys Ala Arg Arg Arg Thr Arg Ser Ser
20          25          30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
35          40          45
Ser Ser Ser Ser Ser Ser Ser Asp Gly Arg Lys Lys Arg Gly Lys Tyr
50          55          60
Lys Asp Lys Arg Arg Lys
65          70

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<210> 3801

<211> 4070

<212> DNA

<213> Homo sapiens

<400> 3801

ngctagcccg gcggcaagca ctgacgtgtc tctcggcgga gctgctgtgc agtggaaacgc
60
gctggggccgc gggcagcgtc gcctcaccgc gagcagagct gagctgaagc gggaccgccga
120
gcccgcagcag ccgcgcgcat ggcaatcaaa tttctggaag tcatcaagcc ctctctgtgtc
180
atcctgcggg aaattcagaa gccagagagg aagattcagt ttaaggagaa agtgcgtgtgg
240
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<211> 476

<212> PRT

<213> Homo sapiens

<400> 3802

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			85				90					95			
Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
			100				105					110			
Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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Ile Val Leu Leu Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly
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Ser Gly Ile Ser Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val
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Trp Lys Ala Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu
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Phe Glu Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr
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Asp Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
225      230      235      240
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Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr
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Arg Gly Gln Tyr Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn
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Pro Val Gly Gly Leu Cys Tyr Tyr Leu Ser Pro Pro Glu Ser Phe Gly
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Ser Ser Ala Lys Asp Val Ala Lys Gln Leu Lys Glu Gln Gln Met Val
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Met Arg Gly His Arg Glu Thr Ser Met Val His Glu Leu Asn Arg Tyr
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<210> 3803

<211> 345

<212> DNA

<213> Homo sapiens

<400> 3803

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<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

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 Leu His Val Leu Ile Glu Val Phe Ala Pro Pro Gly Glu Ala Tyr Ser
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 Arg Met Ser His Ala Leu Glu Glu Ile Lys Lys Phe Leu Val Pro Asp
 65 70 75 80
 Tyr Asn Asp Glu Ile Arg Gln Glu Gln Leu Arg Glu Leu Ser Tyr Leu
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<211> 1923

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 3806

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His Met Arg Pro Arg Arg Pro His Gln Ile Ala Asp Leu Phe Arg Pro
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195         200         205
Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp
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<210> 3807
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 <213> Homo sapiens

<400> 3807

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 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 3808
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<210> 3810

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3810

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Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
			35				40					45			
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
			50			55					60				
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
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Arg

<210> 3811

<211> 296

<212> DNA

<213> Homo sapiens

<400> 3811

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<210> 3812

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3812

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Pro	Tyr	Gln	Arg	Thr	Pro	Arg	Gln	Ile	Ser	Gly	Gln	Gln	Gly	His	Leu
		35					40					45			
Thr	Trp	Gly	Ala	Cys	Trp	Gln	His	Cys	Leu	Asp	Ser	Arg	Ala	Ser	Leu
	50					55					60				
Gly	Pro	Pro	Pro	Asn	Pro	Ala	Arg	Glu	Arg	Leu	Lys	Ala	Cys	Pro	Pro
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Cys	Trp	Ala	Trp	Val	Gly	Arg	Ser	Gly	Thr	Gly	Pro	Ser	Arg		
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<210> 3813

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 3813

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<210> 3814

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3814

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 35 40 45
 Leu His Thr Phe Asp Leu Leu Gly Phe Gly Arg Ser Ser Arg Pro Ala
 50 55 60
 Phe Pro Arg Asp Pro Glu Gly Ala Glu Asp Glu Phe Val Thr Ser Ile
 65 70 75 80
 Glu Thr Trp Arg Glu Thr Met Gly Ile Pro Ser Met Ile Leu Leu Gly
 85 90 95
 His Ser Leu Gly Gly Phe Leu Ala Thr Ser Tyr Ser Ile Lys Tyr Pro
 100 105 110
 Asp Arg Val Lys His Leu Ile Leu Val Asp Pro Trp Gly Phe Pro Leu
 115 120 125
 Arg Pro Thr Asn Pro Ser Glu Ile Arg Ala Pro Pro Ala Trp Val Lys
 130 135 140
 Ala Val Ala Ser Val Leu Gly Arg Ser Asn Pro Leu Ala Val Leu Arg
 145 150 155 160
 Val Ala Gly Pro Trp Gly Pro Gly Leu Val Gln Arg Phe Arg Pro Asp

	165		170		175
Phe Lys Arg	Lys Phe Ala Asp Phe	Phe Glu Asp Asp Thr	Ile Ser Glu		
	180	185	190		
Tyr Ile Tyr	His Cys Asn Ala Gln Asn	Pro Ser Gly Glu Thr	Ala Phe		
	195	200	205		
Lys Ala Met	Met Glu Ser Phe Gly Trp	Ala Arg Arg Pro	Met Leu Glu		
	210	215	220		
Arg Ile His	Leu Ile Arg Lys Asp	Val Pro Ile Thr	Met Ile Tyr Gly		
	225	230	235	240	
Ser Asp Thr	Trp Ile Asp Thr Ser	Thr Gly Lys Lys Val	Lys Met Gln		
	245	250	255		
Arg Pro Asp	Ser Tyr Val Arg Asp	Met Glu Ile Lys	Gly Ala Ser His		
	260	265	270		
His Val Tyr	Ala Asp Gln Pro His	Ile Phe Asn Ala	Val Val Glu Glu		
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<210> 3815

<211> 3669

<212> DNA

<213> Homo sapiens

<400> 3815

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<210> 3816

<211> 707

<212> PRT

<213> Homo sapiens

<400> 3816

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      20            25            30
Asp Ile Ile Cys Cys Val Phe Leu Leu Ala Ile Val Gly Tyr Val
      35            40            45
Ala Val Gly Ile Ile Ala Trp Thr His Gly Asp Pro Arg Lys Val Ile

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          485                      490                      495
Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile
          500                      505                      510
Leu Ala Ile Val Gln Ile Ile Arg Val Ile Leu Glu Tyr Leu Asp Gln
          515                      520                      525
Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala Lys Cys Leu Met Thr Cys
          530                      535                      540
Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys Phe Ile Lys Phe Leu Asn
          545                      550                      555                      560
Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Thr Asn Phe Cys Thr
          565                      570                      575
Ser Ala Arg Asn Ala Phe Phe Leu Leu Met Arg Asn Ile Ile Arg Val
          580                      585                      590
Ala Val Leu Asp Lys Val Thr Asp Phe Leu Phe Leu Leu Gly Lys Leu
          595                      600                      605
Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe Thr His
          610                      615                      620
Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr Tyr Trp
          625                      630                      635                      640
Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala His Gly
          645                      650                      655
Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu Cys Phe
          660                      665                      670
Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Pro Tyr Phe
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Ala Glu Ser
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<210> 3817

<211> 419

<212> DNA

<213> Homo sapiens

<400> 3817

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<210> 3818

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3818

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 20           25           30
Arg Glu Ile Asn Pro Leu Leu Phe Ser Tyr Val Glu Glu Leu Val Glu
 35           40           45
Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
 50           55           60
Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Asp Leu Leu
 65           70           75           80
Asp Val His Ala Gly Arg Leu Gly Cys Ser Leu Thr Glu Ile His Thr
 85           90           95
Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala Lys
100           105           110
Gly Phe Val Cys Glu Leu Cys Arg Glu Gly Asp Val Leu Phe Pro Phe
115           120           125
Asp Ser His Thr Ser Val Cys Ala Asp Cys Phe
130           135

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<210> 3819

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 3819

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780

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<210> 3820

<211> 535

<212> PRT

<213> Homo sapiens

<400> 3820

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 35 40 45
 Ser Trp His Phe Glu Gly Ser Trp Ser Cys Ala Gly Ser Cys Phe Ala
 50 55 60
 Ser Cys Phe Phe Arg Tyr Cys Ala Pro Ser Glu Pro Ala Thr Gly Arg
 65 70 75 80
 Arg Lys Phe Asp Gly Ala Gly Arg Val Ala Val Glu Arg Arg Arg Gly
 85 90 95
 Ser Ser Ala Gly Phe Pro Cys Ser Gln Arg Ser Arg Arg Pro Ala Glu
 100 105 110
 Pro Gly Arg Gly Ile Thr Asp Arg Arg Arg Arg Gly Pro Ile Gly Arg

115	120	125
Val Asn Met Asp Leu Glu Asn Lys Val Lys Lys Met Gly Leu Gly His		
130	135	140
Glu Gln Gly Phe Gly Ala Pro Cys Leu Lys Cys Lys Glu Lys Cys Glu		
145	150	155
Gly Phe Glu Leu His Phe Trp Arg Lys Ile Cys Arg Asn Cys Lys Cys		
165	170	175
Gly Gln Glu Glu His Asp Val Leu Leu Ser Asn Glu Glu Asp Arg Lys		
180	185	190
Val Gly Lys Leu Phe Glu Asp Thr Lys Tyr Thr Thr Leu Ile Ala Lys		
195	200	205
Leu Lys Ser Asp Gly Ile Pro Met Tyr Lys Arg Asn Val Met Ile Leu		
210	215	220
Thr Asn Pro Val Ala Ala Lys Lys Asn Val Ser Ile Asn Thr Val Thr		
225	230	235
Tyr Glu Trp Ala Pro Pro Val Gln Asn Gln Ala Leu Ala Arg Gln Tyr		
245	250	255
Met Gln Met Leu Pro Lys Glu Lys Gln Pro Val Ala Gly Ser Glu Gly		
260	265	270
Ala Gln Tyr Arg Lys Lys Gln Leu Ala Lys Gln Leu Pro Ala His Asp		
275	280	285
Gln Asp Pro Ser Lys Cys His Glu Leu Ser Pro Arg Glu Val Lys Glu		
290	295	300
Met Glu Gln Phe Val Lys Lys Tyr Lys Ser Glu Ala Leu Gly Val Gly		
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Asp Val Lys Leu Pro Cys Glu Met Asp Ala Gln Gly Pro Lys Gln Met		
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Glu Asp Lys Ser Ala Glu His Lys Arg Thr Gln Tyr Ser Cys Tyr Cys		
355	360	365
Cys Lys Leu Ser Met Lys Glu Gly Asp Pro Ala Ile Tyr Ala Glu Arg		
370	375	380
Ala Gly Tyr Asp Lys Leu Trp His Pro Ala Cys Phe Val Cys Ser Thr		
385	390	395
Cys His Glu Leu Leu Val Asp Met Ile Tyr Phe Trp Lys Asn Glu Lys		
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Leu Tyr Cys Gly Arg His Tyr Cys Asp Ser Glu Lys Pro Arg Cys Ala		
420	425	430
Gly Cys Asp Glu Leu Ile Phe Ser Asn Glu Tyr Thr Gln Ala Glu Asn		
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Gln Asn Trp His Leu Lys His Phe Cys Cys Phe Asp Cys Asp Ser Ile		
450	455	460
Leu Ala Gly Glu Ile Tyr Val Met Val Asn Asp Lys Pro Val Cys Lys		
465	470	475
Pro Cys Tyr Val Lys Asn His Ala Val Val Arg Ser Val Leu Arg Ile		
485	490	495
Trp Leu Pro Gln Pro Ala Leu Gly Leu Glu Phe Met Leu Phe Leu Lys		
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<210> 3821

<211> 5212

<212> DNA

<213> Homo sapiens

<400> 3821

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<211> 125

<212> PRT

<213> Homo sapiens

<400> 3826

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<210> 3827

<211> 1245

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

<400> 3830

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<210> 3831

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3831

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<210> 3832

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3832

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 Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
 50 55 60
 Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
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<210> 3833

<211> 1764

<212> DNA

<213> Homo sapiens

<400> 3833

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<210> 3834

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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 Leu Leu Leu Leu Ser Ser Glu Ala Arg Pro Val Leu Phe Glu Gly Pro
 50 55 60
 Ala Ser Ser Gly Ala Gly Ala Glu Ser Phe Glu Gln Gly Arg Asp Thr
 65 70 75 80
 Ile Ile Ala Arg Thr Lys Gly Leu Ser Ile Leu Thr His Asp Val Gln
 85 90 95
 Ser Gln Leu Asn Met Gly Arg Phe Gly Glu Ala Gly Asp Ser Leu Val
 100 105 110
 Glu Leu Gly Asp Leu Val Val Ser Leu Thr Glu Cys Ser Ala His Ala
 115 120 125
 Ala Tyr Leu Ala Ala Val Ala Thr Pro Gly Ala Gln Pro Ala Gln Pro
 130 135 140
 Gly Leu Val Asp Arg Tyr Arg Val Thr Arg Cys Arg His Glu Val Glu
 145 150 155 160
 Gln Gly Cys Ala Val Leu Arg Ala Thr Pro Leu Ala Asp Met Thr Pro
 165 170 175
 Gln Leu Leu Leu Glu Val Ser Gln Gly Leu Ser Arg Asn Leu Lys Phe
 180 185 190
 Leu Thr Asp Ala Cys Ala Leu Ala Ser Asp Lys Ser Arg Asp Arg Phe
 195 200 205
 Ser Arg Glu Gln Phe Lys Leu Gly Val Lys Cys Met Ser Thr Ser Ala
 210 215 220
 Ser Ala Leu Leu Ala Cys Val Arg Glu Val Lys Val Ala Pro Ser Glu
 225 230 235 240
 Leu Ala Arg Ser Arg Cys Ala Leu Phe Ser Gly Pro Leu Val Gln Ala
 245 250 255
 Val Ser Ala Leu Val Gly Phe Ala Thr Glu Pro Gln Phe Leu Gly Arg
 260 265 270
 Ala Ala Ala Val Ser Ala Glu Gly Lys Ala Val Gln Thr Ala Ile Leu
 275 280 285
 Gly Gly Ala Met Ser Val Val Ser Ala Cys Val Leu Leu Thr Gln Cys

290		295		300
Leu Arg Asp Leu Ala Gln His Pro Asp Gly Gly Ala Lys Met Ser Asp				
305		310		315
His Arg Glu Arg Leu Arg Asn Ser Ala Cys Ala Val Ser Glu Gly Cys				
	325		330	335
Thr Leu Leu Ser Gln Ala Leu Arg Glu Arg Ser Ser Pro Arg Thr Leu				
	340		345	350
Pro Pro Val Asn Ser Asn Ser Val Asn				
355		360		

<210> 3835

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 3835

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<210> 3836

<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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Phe Phe Leu Phe Val Ser Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu		
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Val Leu Phe Met Val Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn		
85	90	95
Leu Gln Ala Thr Glu Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu		
100	105	110
Gly Leu Thr Ala Ser Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr		
115	120	125
Thr Arg Ala Lys Asp Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg		
130	135	140
Asp Leu Asp Arg Ile Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg		
145	150	155
Val Ile Tyr Thr Asn Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser		
165	170	175
Glu Lys Gln Cys Arg Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp		
180	185	190
Ala Leu Leu Phe Met Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu		
195	200	205
Ile Ala Lys Glu Lys Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu		
210	215	220
Leu Asn Lys Arg Val Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr		
225	230	235
Arg Glu Leu Gln His Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln		
245	250	255
Lys Val Gln Ala Leu Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met		
260	265	270
Asp Leu Arg Asn Leu Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp		
275	280	285
Asn Leu Gly Tyr Asn Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser		
290	295	300
Ile Arg Arg Ala Cys Asp His Met Pro Ser Leu Met Ser Ser Lys Val		
305	310	315
Glu Glu Leu Ala Arg Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg		
325	330	335
Glu Asn Ser Asp Leu Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu		
340	345	350
Arg Ala Ser Gln Glu Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala		
355	360	365
Arg Glu Ala Lys Leu Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala		
370	375	380
Leu Glu Glu Lys Ala Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys		
385	390	395
Glu Leu Glu Glu Lys Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu		
405	410	415
Ala Ile Arg Asn Ser Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln		
420	425	430
Pro Met Met Pro Val Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln		
435	440	445
Pro Ile Asp Pro Ala Ser Leu Glu Glu Phe Lys Arg Lys Ile Leu Glu		
450	455	460
Ser Gln Arg Pro Pro Ala Gly Ile Pro Val Ala Pro Ser Ser Gly		

465

470

475

<210> 3837

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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 2084

<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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 20 25 30
 Ser His Leu Pro Pro Glu His Ser Asp Val Val Ile Val Gly Gly Gly
 35 40 45
 Val Leu Gly Leu Ser Val Ala Tyr Trp Leu Lys Lys Leu Glu Ser Arg
 50 55 60
 Arg Gly Ala Ile Arg Val Leu Val Val Glu Arg Asp His Thr Tyr Ser
 65 70 75 80
 Gln Ala Ser Thr Gly Leu Ser Val Gly Gly Ile Cys Gln Gln Phe Ser
 85 90 95
 Leu Pro Glu Asn Ile Gln Leu Ser Leu Phe Ser Ala Ser Phe Leu Arg
 100 105 110
 Asn Ile Asn Glu Tyr Leu Ala Val Val Asp Ala Pro Pro Leu Asp Leu
 115 120 125
 Arg Phe Asn Pro Ser Gly Tyr Leu Leu Ala Ser Glu Lys Asp Ala
 130 135 140
 Ala Ala Met Glu Ser Asn Val Lys Val Gln Arg Gln Glu Gly Ala Lys
 145 150 155 160
 Val Ser Leu Met Ser Pro Asp Gln Leu Arg Asn Lys Phe Pro Trp Ile
 165 170 175
 Asn Thr Glu Gly Val Ala Leu Ala Ser Tyr Gly Met Glu Asp Glu Gly

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195              200              205
Ser Leu Gly Val Leu Phe Cys Gln Gly Glu Val Thr Arg Phe Val Ser
210              215              220
Ser Ser Gln Arg Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys
225              230              235              240
Arg Ile His Glu Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln
245              250              255
Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala
260              265              270
Gln Ile Ala Ala Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu
275              280              285
Gln Gly Thr Lys Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val
290              295              300
Trp His Cys Pro Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp
305              310              315              320
Thr Ser Gly Ala Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu
325              330              335
Gly Gly Arg Ser Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu
340              345              350
Glu Val Asp His Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala
355              360              365
Leu Arg Val Pro Ala Phe Glu Thr Leu Lys Cys Phe Val His Pro Gln
370              375              380
Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp Tyr Asn Thr Phe Asp Gln
385              390              395              400
Asn Gly Val Val Gly Pro His Pro Leu Val Val Asn Met Tyr Phe Ala
405              410              415
Thr Gly Phe Ser Gly His Gly Leu Gln Gln Ala Pro Gly Ile Gly Arg
420              425              430
Ala Val Ala Glu Met Val Leu Lys Gly Arg Phe Gln Thr Ile Asp Leu
435              440              445
Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu Gly Glu Lys Ile Gln Glu
450              455              460
Asn Asn Ile Ile
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<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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 420
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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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 20 25 30
 Met Glu Tyr Leu Asn Ser Arg Cys Val Leu Phe Thr Tyr Phe Gln Gly
 35 40 45
 Asp Ile Gly Ser Val Val Asp Glu His Phe Ser Arg Ala Leu Gly Gln
 50 55 60
 Ala Ile Thr Leu His Pro Glu Ser Ala Ile Ser Lys Ser Lys Met Gly
 65 70 75 80
 Leu Thr Pro Leu Trp Arg Asp Ser Ser Ala Leu Ser Ser Gln Arg Asn
 85 90 95
 Ser Phe Pro Thr Ser Phe Trp Thr Ser Ser Tyr Gln Pro Pro Pro Ala
 100 105 110
 Pro Cys Leu Gly Gly Val His Pro Asp Phe Gln Val Thr Gly Pro Pro
 115 120 125
 Gly Thr Phe Ser Ala Ala Asp Pro Ser Pro Trp Pro Gly His Asn Leu
 130 135 140
 His Gln Thr Gly Pro Ala Pro Pro Pro Ala Val Ser Glu Ser Trp Pro
 145 150 155 160
 Tyr Pro Leu Thr Ser Gln Val Ser Pro Ser Tyr Ser His Met His Asp
 165 170 175
 Val Tyr Met Arg His His His Pro His Ala His Met His His Arg His
 180 185 190
 Arg His His His His His His His Pro Ala Gly Ser Ala Leu Asp
 195 200 205
 Pro Ser Tyr Gly Pro Leu Leu Met Pro Ser Val His Ala Ala Arg Ile
 210 215 220
 Pro Ala Pro Gln Cys Asp Ile Thr Lys Thr Glu Pro Thr Thr Val Thr
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 Ser Ala Thr Ser Ala Trp Ala Gly Ala Phe His Gly

245

250

<210> 3841
 <211> 367
 <212> DNA
 <213> Homo sapiens

<400> 3841
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 180
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 367

<210> 3842
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 3842
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 35 40 45
 Glu His Pro Asn Asp Val Arg Cys Ser Ser Thr Leu Val Thr His Ser
 50 55 60
 Lys Gly Tyr Glu Asn Gly Thr Asn Arg Leu Ser Leu Pro Lys Pro Ile
 65 70 75 80
 Leu Lys Ser Glu Lys Asn Lys Pro Leu Asp Pro Glu Met Gln Cys Leu
 85 90 95
 Leu Leu Ser Asp Gly Lys Gly Ser Ile His Pro Asn His Val Val Ile
 100 105 110
 Leu Pro Gly Asp Gly Gly Ser Gly Pro Ala
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<210> 3843
 <211> 712
 <212> DNA
 <213> Homo sapiens

<400> 3843
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 240
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 360
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 420
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 480
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 540
 gggggcgacc aggtctatta agggagatgg cgaggtccta gaggaatcg taaccaaga
 600
 acgacacaga gagatcaaca agcaagccac ccgaggggac tgcctggcct tccagatgcg
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<210> 3844
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 3844
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 35 40 45
 Ala Pro Gly Ala Glu Ala Ser Pro Ser Cys Ile Thr Glu Arg Ser
 50 55 60
 Lys Gln Lys Ala Arg Arg Arg Thr Arg Ser Ser Ser Ser Ser Ser
 65 70 75 80
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
 85 90 95
 Ser Ser Asp Gly Arg Lys Lys Arg Gly Lys Tyr Lys Asp Lys Arg Arg
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<210> 3845
 <211> 2302
 <212> DNA
 <213> Homo sapiens

<400> 3845

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<210> 3846

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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 20 25 30
 Gly Pro Ala Glu Pro Arg Val Ala Gly Ala Gly Ala Ala Ala Glu
 35 40 45
 Gly Ala Ala Ala Gly Ala Cys Gly Pro Ala Arg Cys Ala Asp Gln Gly
 50 55 60
 Gly Ala Arg Glu Arg Gly Gly Arg Gly Gly Arg Gly Ala Gly Gly Gly
 65 70 75 80
 Gly Gly Ala His Gly His Phe Pro Gln Arg Pro Pro Gln Gln Ala Gly
 85 90 95
 Gln Arg Ala Ala Ser Arg Ala Gly Cys Gly His Arg Gln Leu Gln Arg
 100 105 110
 Ala Pro Ala Pro Gly Leu Arg Gln His Pro Cys Gly Ser Gly Thr Glu
 115 120 125
 Gly Leu Arg Gly Gly His Leu Ser Glu Thr Val Cys Ala His Ala Glu
 130 135 140
 Arg Thr Gln Ala Pro Leu Gln Ser Ala Leu Gly Gln Pro Ala Pro Arg
 145 150 155 160
 Pro His Thr Leu Gln Arg His Leu Gly Pro His Ala Thr Gly His Gly
 165 170 175
 Ala Gly Arg Arg Leu Gln Ala Asp Thr Gly Ala Phe Ser Pro Pro Asp